EXCLUSIVE VISIT TO LEONARDO UK AND A SIT DOWN WITH COMPANY MANAGING DIRECTOR

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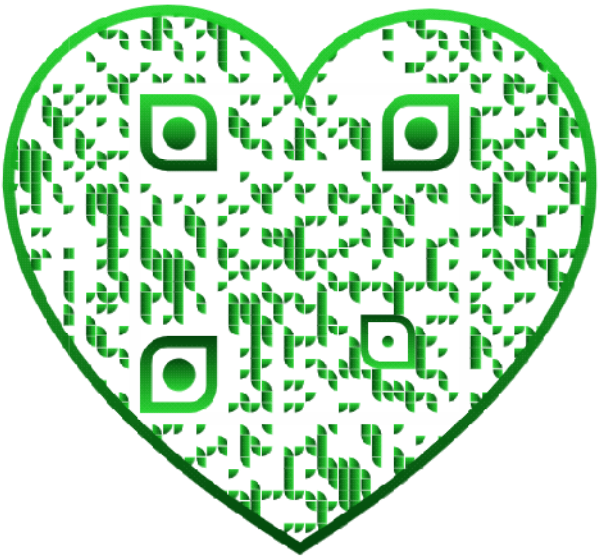

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On the cover

A montage of British built helicopters displaying, the history, capabilities and potentially the future of British helicopters.
Images from Chris Gilligan, Leonardo UK and James Penberthy

Welcome

Welcome to another edition of Aviation News, during the month of November more A350s were delivered to their respective operators. The A350 now flies in Africa under the helm of Ethiopian Airlines. Emirates also took delivery of their first of 65 A350s. The Emirates A350 will first be seen in the UK when it runs operations between Dubai and Scottish capital, Edinburgh early next year. In the military sector, the F-35C carrier capable variant of the F-35 joins the A and B models in being utilised in combat. USMC squadron VMFA-314 operating from the USS Abraham Lincoln (CVN-72) in the Red Sea struck parts of Syria and Houthi weapon facilities in Yemen. Staying on F-35, Romania became the 20th alliance member of the programme. Meanwhile in the UK, it was announced that the Puma fleet, still without a confirmed replacement will retire in March next year. The oldest 14 Chinook HC6s in service with the UK will also be retired but on a positive, will be eventually replaced like-for-like with more modern H-47(ER) Extended Range variants.

Feature wise, we were very lucky to enter the gates of Leonardo UK and the chance to sit down with MD, Adam Clarke to discuss the latest ongoings at the company as it looks to secure the NMH programme. We also sit down with a U-2 Dragon lady pilot! In the General Aviation Sector, we gain an insight to the Kodiak 100 STOL aircraft and the Draco, which is the fruit of some seriously cool innovation in my opinion. Speaking of innovation, transoceanic ops for the Iberia A321XLR have begun and we take look deep into what this narrow body aircraft has to offer its operators and its passengers. I hope you enjoy!

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Joe

Joe Campion, Editor

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Cover image: A collage of multiple UK built helicopters at Yeovilton, Leonardo's facility which throughout the past produced thousands of machines that serve all around the world. Chis Gilligan, Leonardo & James Penberthy

Main Image: First ever Kodiak 100 in Poland during a flight over the Gdańsk Peninsula Filip Modrzejewski

Top right: an inflight selfie taken during a high altitude mission in the USAF U-2 Dragon Lady. Jon "Huggy" Huggins.

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ian allan Aviation Tours

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2025 TOURS PROGRAMME

- **29 Mar-8 Apr: USA: Tucson, Grand Canyon & Nellis:** Pima Air Museum; boneyards; Titan Missile Solo; South Rim GCN; Luke AFB (TBC); 2 days Aviation Nation Airshow, Nellis AFB. So many "wow's" on this tour
- **24 Apr-5 May MEXICO & USA:** An amazing mix of FAMEX, Mexico, and Wings Over Wayne Airshow, North Carolina, plus Museums incl Sully Sullenberger's A320 "Miracle on the Hudson". USAF Thunderbirds and Strike Eagles galore at WOW!
- **3-9 Jun FRANCE:** La Ferte Alais Airshow; Orange Aeronautical Museum; Musee Europeen de l'Aviation; Aero Retro (opt flts); Chateau Savigny-les-Beaune 250+ a/c! + Musee d l'Air et l'Espace, Le Bourget (optn).
- **1-11 Jun USA:** So much heritage action & history! Dayton, Reading, Dover AFB & Washington DC: WWII Warbirds Weekend Airshow Reading, US Air Force Museum, Mid-Atlantic Air Museum, Air Mobility Command, Nat'l Air & Space Museum & Udvar Hazy Museums; free time in DC.
- **13-22 Jun GERMANY & POLAND:** Secret WWII bases & locations incl Lartze, Rechlin, Peenemunde, Neubrandenburg, Finov (opt), Zossen, Armaments Museum, Poznan; amazing Leszno Airshow.
- **20-28 Jul USA: Oshkosh:** 10,000+ a/c; 6 full days at world's largest aviation event; staying in Oshkosh.
- **20-28 Jul USA: Oshkosh:** as above, staying in Green Bay hotel.
- **10-14 Sep GERMANY:** Hahnweide 'Old Timers' Airshow; back after 6 years absence. Europe's most popular GA fly-in and airshow event. Also rarities at the International Aviation Museum Manfred Pflumm.
- **17-22 Sep CZECH REPUBLIC:** NATO & Czech Air Force Int'l Airshow; aviation museums of Kbely, Zruc, Vyskov, Kunovice & National Technical Museum Prague.
- **21 Sept-3 Oct PORTUGAL:** NATO TIGER MEET, Beja AB. Await dates of Spotter Days. Email us now.
- **TBA TURKEY:** Exercise ANATOLIAN EAGLE on Konya AB. Await dates of Spotters Days. Email us now.
- **TBA GREECE:** we await details of Exercise INIOCHOS on Andravida AB. Email us now.

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First Emirates A350 Delivered

Emirates

EMIRATES CELEBRATED the delivery of their first Airbus A350 aircraft on November 25. A6-EXA is the first of 65 A350 aircraft to be delivered, with the rest to follow over the next few years. The A350 is the first new type into service with Emirates since 2008.

The aircraft was officially handed over to Emirates after a ferry flight from Airbus facility Toulouse, Paris, to Dubai where it will receive its finishing touches at Emirates Engineering before being officially unveiled at a company-run event.

The delivery flight for the newest member of the Emirates fleet was powered by a blend of jet fuel and sustainable aviation fuel (SAF).

The A350 will make its first commercial flight in January to Edinburgh. The A350 will then serve eight other destinations around Europe, West Asia and the Middle East, followed by eight other destinations across the Middle East, West Asia and Europe.

Africa's First A350

ETHIOPIAN AIRLINES welcomed Africa's first Airbus A350-1000 in a grand ceremony attended by government officials, ambassadors, diplomats and representatives from Airbus. It landed at Addis Ababa/Bole International on November 5, after a 6.5-hour ferry flight from Toulouse, and received the traditional water cannon salute

Ethiopian Airlines Group CEO said: "We are thrilled to welcome the Airbus A350-1000 to our fleet, solidifying our position as leaders in aviation technology. This aircraft embodies cutting-edge advancements, offering superior passenger comfort, enhanced fuel efficiency and reduced environmental impact. Together, we are pioneering a sustainable future for aviation in Africa."

ET-BAW (c/n 691) wears '1st A350-1000 in Africa' stickers beside the front doors and is configured in a two-class layout, with 46 business and 349 economy seats. It is the first of four examples ordered by Africa's biggest airline in 2022. The second, ET-BAX (c/n 702), has the same configuration and completed its first flight on November 19. It is due to arrive before the end of 2024, with the two remaining examples due for delivery in early 2025. The A350-1000 forms part of the airline's Vision 2035 programme, as it plans to increase its current fleet of 134 aircraft to 270 by 2035.

Airbus
Ethiopian
1st A350-1000 AFRICA
BAW
1st A350-1000

Jet2 lands at Luton

BRITAIN'S THIRD largest airline Jet2 will open its 13th UK airport base at London/Luton next April. The move comes amid continued expansion by the leisure carrier which, during 2024, opened a base at Liverpool/John Lennon and announced a new base at Bournemouth which is due to begin operations in early February 2025.

From April 1, Jet2 will position two brand-new Airbus A321neos at Luton which will operate flights to 17 destinations across Europe, the Canary Islands and Mediterranean. The move to open a base at Luton will position Jet2 firmly in easyJet territory and with the latter's package holiday division growing rapidly in recent years, it is likely this was a factor in Jet2's decision-making.

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Emirates returns to Edinburgh

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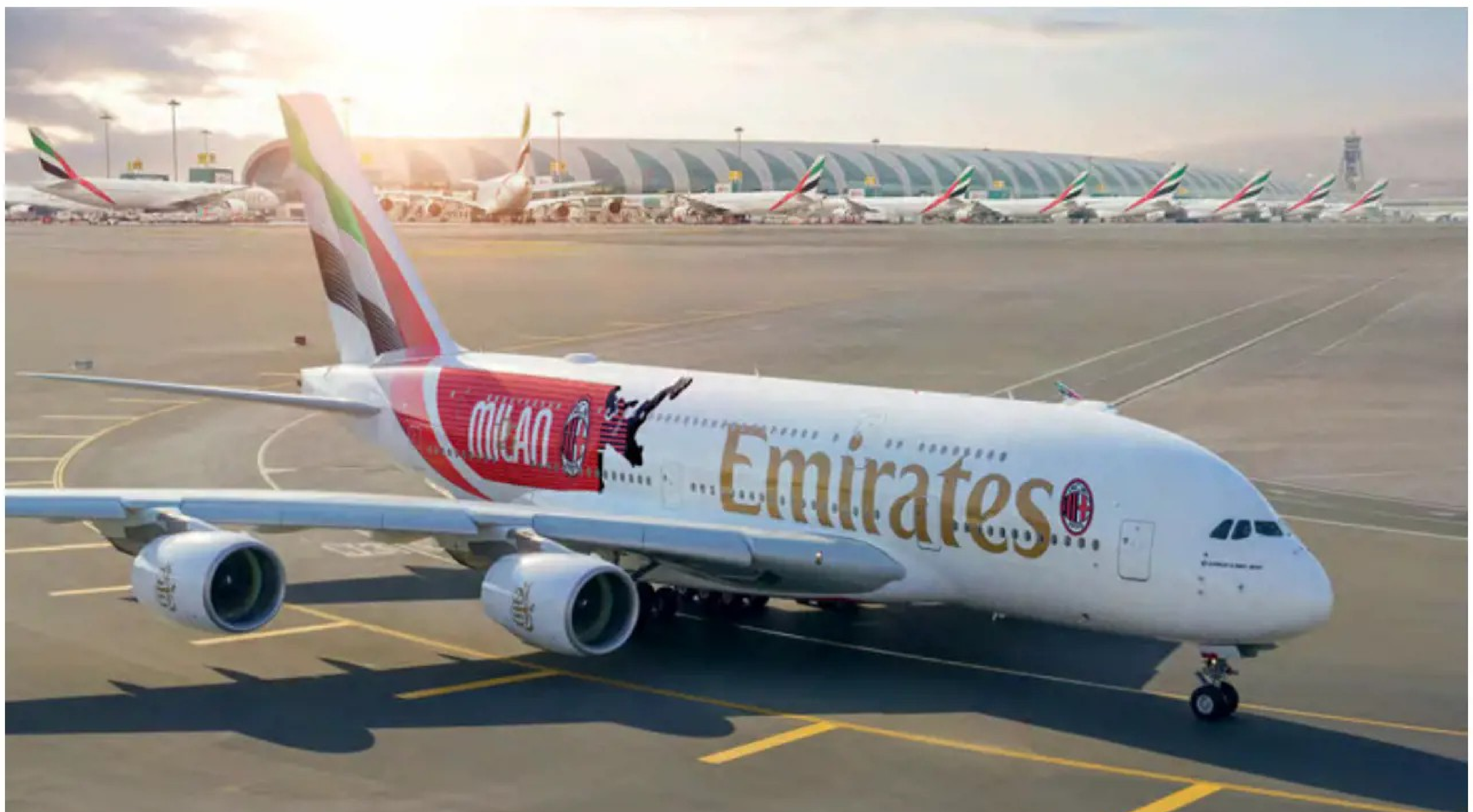
BOEING 777-200LR

UAE FLAG carrier Emirates has landed in the Scottish capital for the first time since 2020 as the airline resumes its direct service between Edinburgh and Dubai. The carrier will operate a daily service between the two capitals year-round.

In what was supposed to be a double celebration involving Emirates' new flagship Airbus A350, delays to the aircraft's delivery meant that a Boeing 777-200LR was left to inaugurate the route. The widebody, A6-EWB (c/n 35573), was welcomed to the capital with a performance from members of the world-famous Edinburgh Military Tattoo, piping the flight onto stand.

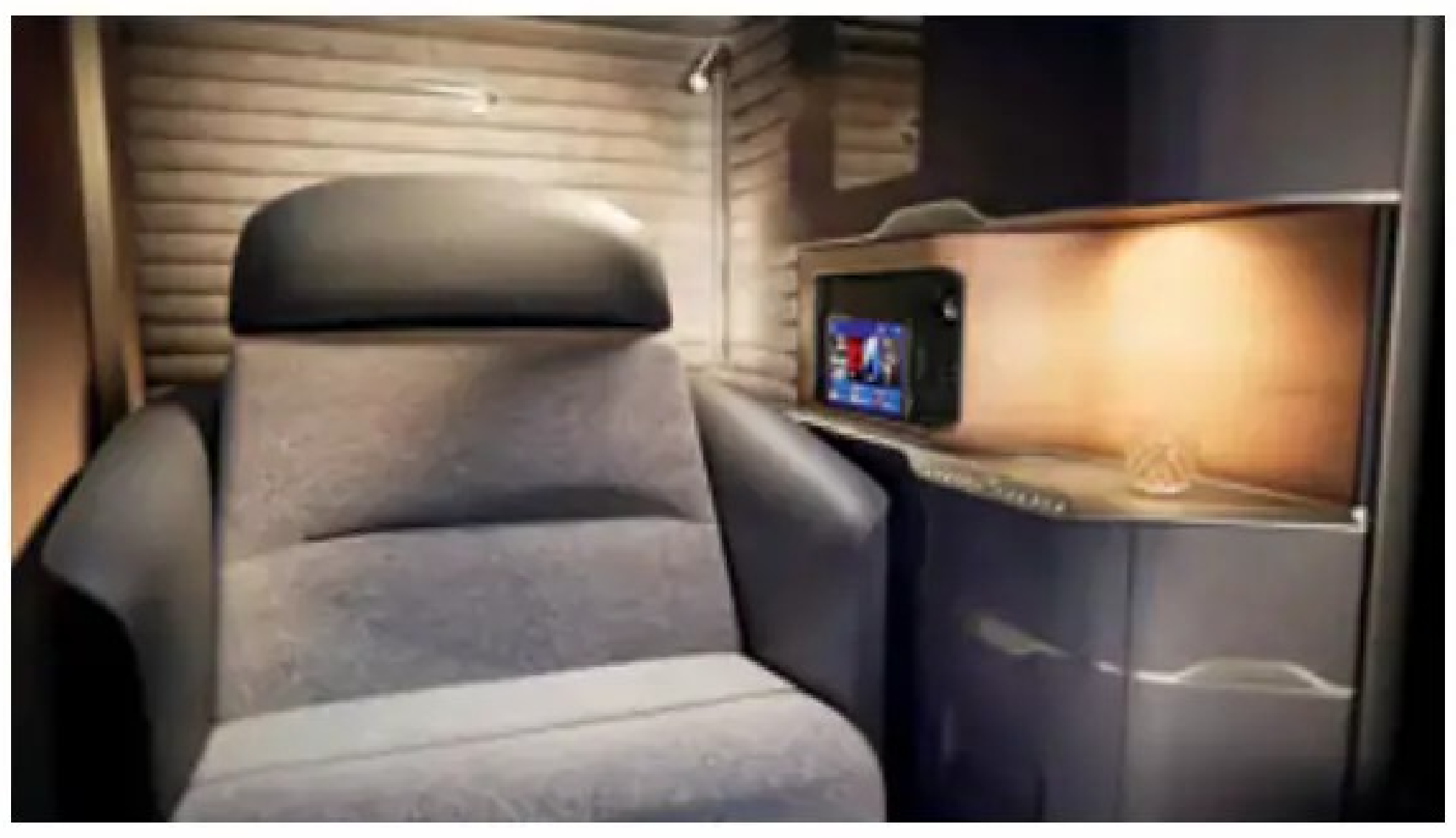
The route will initially be served by a 777 before the airline introduces its very first A350 onto the route, complete with Emirates' premium economy product and its brand-new business class cabin.

Milan scheme for Emirates A380



Emirates, the Official Airline Partner and Principal Partner of AC Milan, has unveiled a bold A380 livery with the club's trademark colours, celebrating the Rossoneri's 125 year-legacy of excellence and generational impact on global football. The new scheme took to the skies on November 26. Emirates

New British Airways First Class Seats



British Airways has unveiled its brand-new First-Class seat. The new cabin forms part of the airline's A380 retrofit plans, expected to take to the skies in mid-2026. New features include a wider and longer seat, a 32-inch TV screen, buddy dining, optimal sense of space and privacy, with a personal luggage space. British Airways

China Southern to sell entire 787-8 fleet

THE LARGEST AIRLINE in Asia by fleet size, China Southern, released a tender on its website in early November which states its intention to sell all ten of its Boeing 787-8 Dreamliner fleet and two spare engines. The sale will be via open bidding and are expected to be delivered to the successful bidder as early as next year.

China Southern were the first 787-8 operator in China in 2013 but now the 787-9, the slightly larger variant, is proving to be more useful for the Asian airline and its network of flights.

中国南方航空
787
CHINA SOUTHERN
DREAMLINER

Ben Stanley Hall

Ten new routes announced in one day

ETIHAD AIRWAYS announced ten new routes on November 25 as part of the airline's rapid expansion programme. The new routes are Algiers (A321LR), Atlanta (A350), Chiang Mai (A321LR), Hanoi (A321LR), Hong Kong (787), Krabi (A321LR), Medan (A321LR) Phnom Penh (A321LR), Taipei (787) and Tunis (A321LR).

The routes are set to begin in July 2025, with Atlanta being the first. The new routes will continue to start until November 25 with the final one being to Algiers. These join the previously announced new destinations of Prague, Warsaw and Al Alamein.

Antonoaldo Neves, Etihad's Chief Executive Officer, said: "This expansion reflects our commitment to listening to our valued guests. We've carefully chosen cities that embody the experiences, adventures, and opportunities that matter to them. Whether seeking inspiring landscapes, vibrant cultural experiences, reuniting with family and friends, pursuing business growth, or educational journeys, our new routes will help make their travel dreams a reality."

He added: "This moment is not just about expanding our network; it's about sharing Abu Dhabi with the world.... Our expanded network will make it easier than ever for guests to experience everything our home city has to offer."

ATR's 600 Series Canadian debut

ATR/72-600
ATR

ATR

RISE AIR, the Canadian regional carrier based in Saskatoon, is to become the country's launch customer for the 68-seat ATR 72-600 after signing an agreement for three airframes – the largest investment in its 69-year history. The first aircraft will be delivered by the end of 2025 with the other two arriving on lease during 2026. Derek Nice, president and CEO at Rise Air, said: "We are thrilled to be introducing the ATR 72-600 to Canada, bringing our customers more comfortable, more reliable air service at remote work sites and communities across the north. The [aircraft's] outstanding performance and low environmental footprint make it the perfect choice for operating in the diverse and challenging conditions where we operate. We look forward to continuing to enhance regional connectivity and support economic growth in the areas we serve."

The airline currently operates 15 aircraft including five ATR 42s, seven de Havilland DHC-6 Twin Otters and three Saab 340s, connecting eight airports across Saskatchewan. The turboprops will be configured to seat 68 passengers and powered by a pair of Pratt & Whitney Canada PW127XT engines.

Nathalie Tarnaud Laude, CEO of ATR, added: "We are delighted to support Rise Air as they introduce the first ATR 72-600 in Canada, marking a double milestone as it also represents the debut of the -600 series in the country. This agreement not only reinforces the strength of our aircraft in the regional market, but also demonstrates the growing interest in the ATR -600 series for markets like Canada."

Ryanair reduces traffic target

LOW-COST GIANT Ryanair has been forced to reduce its 2026 financial year (FY26) passenger target by five million, to 210 million, amid continued delivery delays relating to its Boeing 737 MAXs.

In its FY25 half-year results, the company said it was expecting its remaining nine deliveries originally due for Q3 to slip into Q4 because of recent strikes at the airframer's factories.

The report said: "While we continue to work with Boeing leadership to accelerate aircraft deliveries ahead of peak [summer 2025], the risk of further delivery delays remains high. We believe it is therefore sensible to moderate Ryanair's FY26 traffic growth target to 210m passengers (previously 215m) to reflect these delivery delays, as we wish to avoid being over-scheduled, over-crewed and over costed as we were in [summer 2024]."

Etihad's first A320NEO

Etihad revealed its first A320NEO, A6-EJB, delivered on November 27 in a special scheme celebrating the airlines collaboration with Indian Premier League cricket team Chennai Super Kings. Etihad

An order of up to 80 737 Max Jets

ON NOVEMBER 12, Boeing announced that Avia Solutions Group has ordered 80 Boeing 737 Max Jets. The order includes a firm order for 40 737-8 and on option for 40 more. The group has over 11 Air Operator Certificates including Avion Express, Smartlynx, Klasjet, Air Explore, BBN, Ascend Airways and Skytrans among others. These AOCs operate in over 60 countries.

"As the world's largest ACMI provider, carrying over 35 million passengers annually for our clients, we have committed to a strategic approach of expanding our capacity to meet our customers' seasonal needs, and our first order with Boeing is a key pillar of this," said Gediminas Ziemelis, Chairman of Avia Solutions Group.

It is not known when the ordered aircraft will be delivered.

NEWS IN BRIEF

Bankruptcy for Nordic carrier

ESTONIA'S NORDIC Aviation Group ceased operations and filed for bankruptcy, after an investor decided not to proceed with a planned privatisation of the company. The Tallinn-based group operates under the Nordica brand and has a subsidiary called Regional Jet, which trades as Xfly.

In a statement in November, the firm said that after "assessing the company's economic situation, the management board has decided to cease the airline's operations and file for bankruptcy". Before the bankruptcy, the group was using a selection of Bombardier CRJs, ATR 72s and Airbus A320s.

EasyJet launches new routes

BUDGET OPERATOR EasyJet has launched a tranche of new routes for 2025 including London/Gatwick to Cape Verde – its first sub-Saharan route. Others include Gatwick to Rimini, plus Luton to Almeira, Funchal and Izmir. Birmingham will see new services to Gran Canaria, Malta, Marrakesh and Reykjavik, while new links to Izmir, Kalamata, Larnaca, Madrid and Rennes will operate from Manchester. New routes also include Edinburgh to Enfidha, Olbia and Marrakech, Glasgow to Antalya and Reus, Leeds/Bradford to Malaga and Palma, Liverpool to Split, Newcastle to Malaga, and Belfast to Reus.

British Airways invests in maintenance

BRITISH AIRWAYS is planning a multi-million-pound investment in its engineering maintenance facility at Cardiff Airport. The project – which is part of the flag carrier's £7bn transformation plan – will see one of three existing bays be expanded to accommodate the operator's Airbus A350s. Currently, the complex has only been able to support Boeing 777 and 787s. Work is expected to get underway in 2025 and will be completed by the end of the year.

Etihad order of Freighters increased

ORDERING THE first seven A350Fs in 2022, Etihad has decided to utilize Airbus options to extend and increase its total order of the freight variant to ten. Delivery of the first A350F to the UAE carrier is expected in 2026 or early 2027.

The Airbus A350F will replace the five 777Fs currently operated by Etihad for freight purposes.

Last Tui 767 retires

AFTER A 40-year association with the Boeing 767 which began with Britannia Airways, TUI Group has retired its last example of the American-built widebody. PH-OYJ (c/n 29384), which was operated by TUI fly Netherlands, flew its final passenger flight on November 3, returning holidaymakers to Amsterdam/Schiphol from Lanzarote. The 767-304ER was then ferried to Istanbul/Sabiha Gokcen the following day for cargo conversion.

Largest ever schedule to Italy

American Airlines has launched what it calls its "largest ever schedule to Italy" in 2025 after an uplift in schedules. The inaugural Dallas/Fort Worth to Venice/Marco Polo service begins on June 5, with operations to Rome from Miami and Philadelphia expanded. It will also become the only airline flying non-stop from Chicago to Naples. Flights will be operated by a mix of Boeing 787 Dreamliners and 777-200s.

ATR Cancels STOL

IN OCTOBER aircraft manufacturer ATR has announced the cancellation of its ATR Short Take- off and Landing (STOL) ATR42-600S variant apparently due to evolving marketing dynamics and the company's decision to focus on other products in its portfolio. The company did have over 20 orders for the type and is working with those companies to offer cancellation or alternatives for their orders.

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SOLWAY AVIATION MUSEUM

TAKE A STEP BACK IN TIME

Whether you see yourself as an aviation enthusiast or simply a curious explorer, Solway Aviation Museum has something to offer. Based on the site of RAF Crosby-on-Eden, a former WWII fighter base, the museum has been painstakingly created by a team of highly committed volunteers over a sixty year period.

The museum tells the story of aviation in the Cumbria, its airfields, its characters and its vital role during WWII. The museum is also home to the mighty AVRO Vulcan XJ823 along with a growing collection of British military aircraft which were designed and built in Britain during the Cold war., now added to our collection the worlds only Blackburn Beverley XB249.

The museum is open from 21st March to 31st October on Friday, Saturday and Sundays from 10.30 to 17.00 last entry 16.15 hrs, see our website for more information:

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Black Knights Strike with F-35C

Aviation News

According to a US DoD report, the Lockheed Martin F-35C was used in combat for the first time on November 9-10, conducting strikes against Houthi weapons facility targets in Yemen and targets in Syria, as part of the defeat ISIS mission. It is believed the facilities targeted held weapons including anti-ship missiles.

The F-35Cs were from the USMC squadron, VMFA-314 'Black Knights', assigned to Carrier Air Wing 9 aboard the USS *Abraham Lincoln* (CVN-72), which was conducting operations in the Red Sea. The vessel had been reported out of the area as *Aviation News* went to press.

Lt Col Jeffrey "Wiki" Davis, commanding officer of VMFA-314, said: "The F-35C demonstrated its warfighting advantage by transiting contested airspace and striking targets in the heart of Houthi territory over multiple days. My Marines are honoured to be first to fight with the F-35C."

The F-35C, the carrier capable variant of the fifth-gen fighter now joins the A and B models in being used during combat. CENTCOM commander Army Gen Michael Erik Kurilla said the US will do what's needed to defend its personnel in the CENTCOM area of responsibility.

He said: "Our message is clear. Attacks against US and coalition partners in the region will not be tolerated. We will continue to take every step necessary to protect our personnel and coalition partners and respond to reckless attacks."

UK Defence Cuts

UK/Crown Copyright

Defence Secretary John Healey has announced plans to save the UK up to half a billion pounds over five years.

Part of this plan will see the retirement of the remaining fleet of Joint Aviation Command (JAC) Puma HC.MK2 Helicopters. The medium support helicopter is in service at RAF Benson, Oxfordshire, and has served the UK in multiple theatres since 1971. The remaining 17 will be retired in March 2025. The replacement has yet to be decided in the New Medium Helicopter (NMH) programme – which does only have one bidder remaining, Leonardo with its AW149. Sikorsky and Airbus Helicopters withdrew from the programme in August 2024. As the Puma has served in Brunei and Cyprus, the EC-145 of Airbus Helicopters is due to replace it in those locations by 2026.

As well as the Puma helicopters, 14 of the oldest Chinook HC6As are to be retired and replaced by 14 Chinook H-47 Extended Range (ER) variants. The H-47ER will have a more advanced digital cockpit and air-to-air refuelling capability, unlike any Chinook currently in UK service.

As well as the two helicopter types, the defence secretary said the fleet of Watchkeeper Mk 1 drones introduced in 2010 will be out of service by March 2025. Healey outlined the rationale for retiring the Watchkeeper system: "A modern army must self-evidently have a modern drone capability able to operate in the most challenging environments. Following the retirement of Watchkeeper Mk 1, the Army will rapidly switch to a new advanced capability, drawing on the most recent operational lessons and technological developments." Like the Puma helicopter, no replacement for the Watchkeeper drone has been announced.

New UK Cruise Missile fired for the first time

Eurofighter

THE UK Government announced on November 17 that the latest cruise-missile destined for the UK F-35B fleet was successfully fired from a BAE Eurofighter Typhoon FGR.4 test aircraft.

The Typhoon, ZK356 usually home stationed at BAE's facility at Warton, Lancashire, fired the new SPEAR (Select Precision Effects At Range) next generation turbojet-powered miniature cruise missile at Sweden's Visdel weapons range.

This was the first time the MBDA manufactured missile, capable of hitting targets from 100km away, was fired from an aircraft. The RAF/Royal Navy F-35Bs will be capable of carrying up to eight SPEAR missiles launching from land or from HMS *Queen Elizabeth*-class aircraft carriers.

Matthew Brown, SPEAR Team Leader at DE&S, said: "This trial was a key step on the way to delivering SPEAR to the UK frontline, where it will provide a new capability to defeat the most complex air defence systems, enabling pilots to fly and fight wherever they're needed in defence of the UK and its allies."

C-390 for Sweden

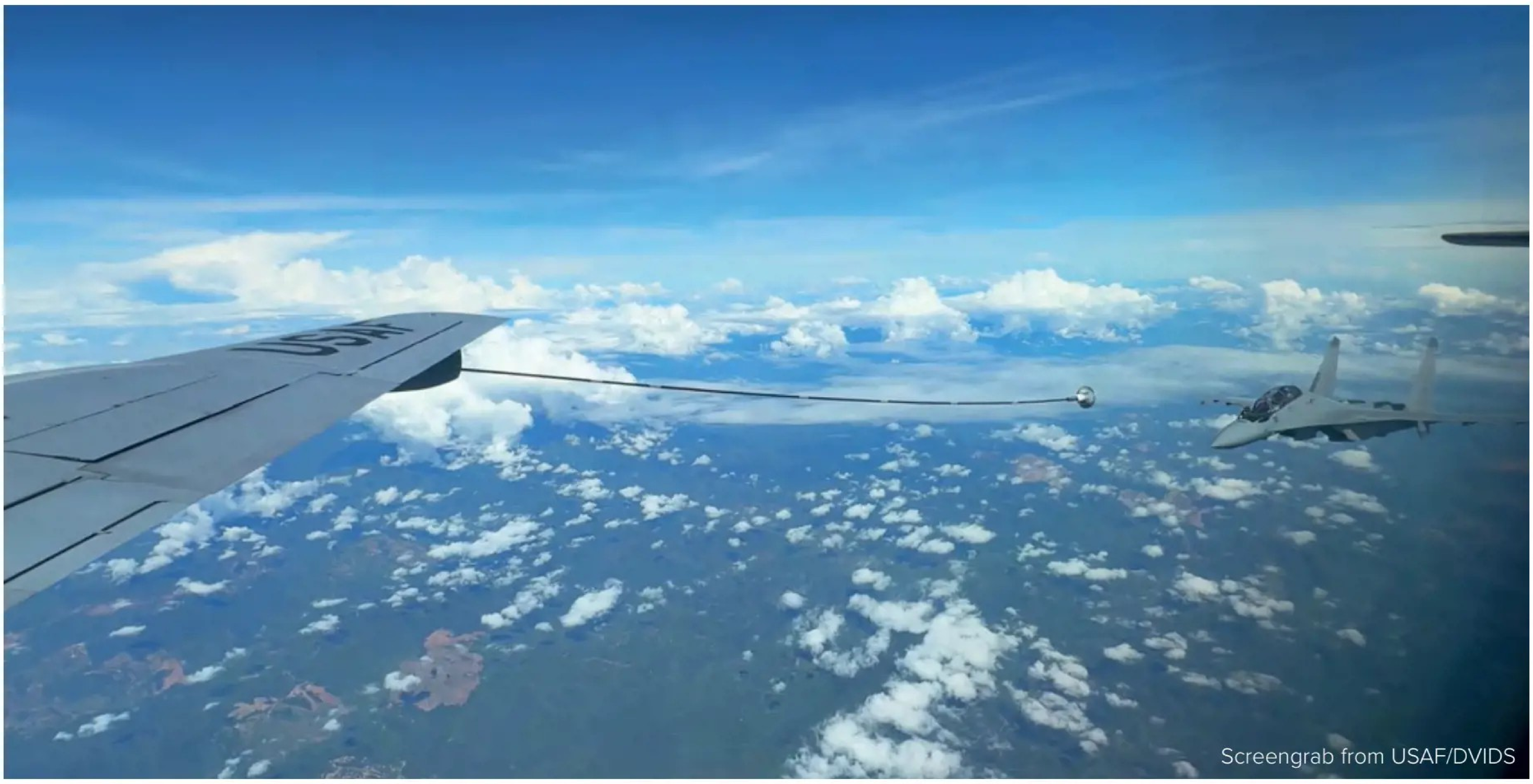
Embraer

NOVEMBER 9 Embraer D&S announced that its latest customer of the C-390 was Sweden. The Swedish MOD announced the selection of Embraer C-390 Millenium as its new tactical transport platform replacing the C-130H Hercules. It will be the sixth European customer alongside Austria, Czech Republic, Hungary, Netherlands and Portugal but will be the first customer of the type in Northern Europe.

The number of C-390s Sweden will operate is unknown. "Embraer is honoured with this selection by Sweden. After several European NATO countries selected the C-390, this decision is a testimony that this multi-mission aircraft represents a tremendous operational capability upgrade compared to previous generation tactical transport aircraft," said Bosco Da Costa Junior, President and CEO of Embraer Defense and Security.

Chief of the Defense Staff for Sweden, Lieutenant General Carl-Johan Edström stated "This means we can take a long-awaited step and begin the process of replacing our current transport aircraft with the C-390 aircraft system. Now we can begin the work to ensure the operational need for a long-term tactical transport aviation capability."

USAF refuels Su-30MKM



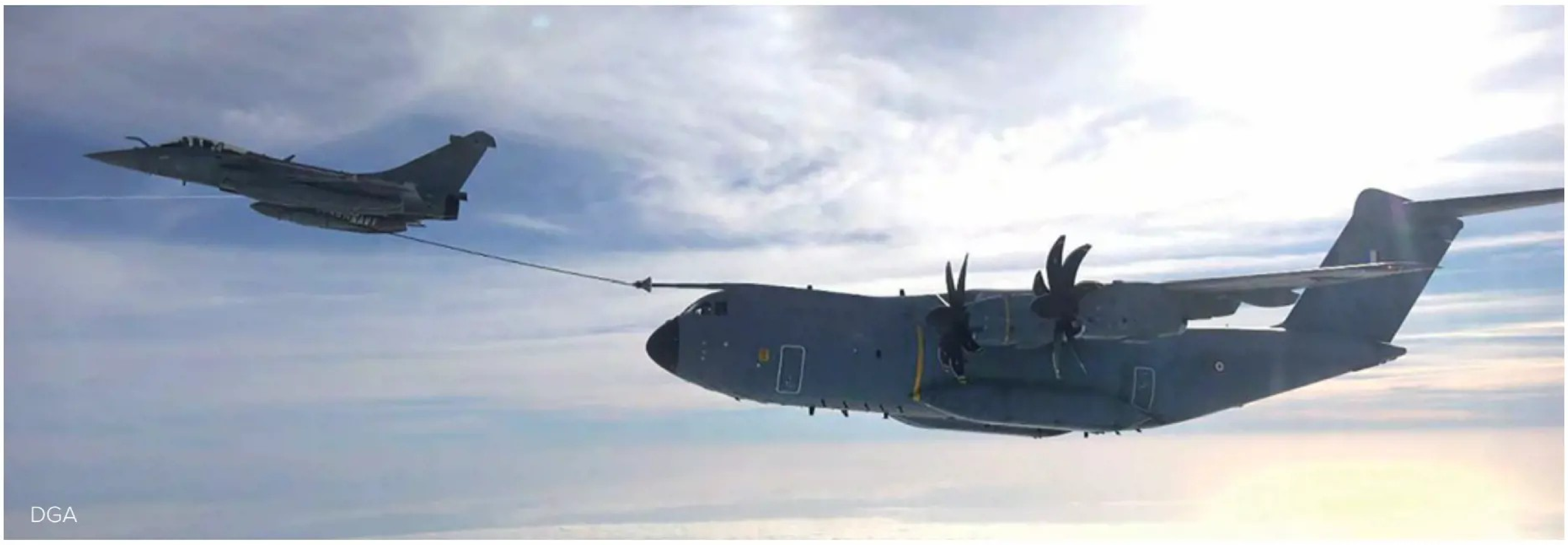
Screengrab from USAF/DVIDS

NOVEMBER 12, a USAF KC-135 refuelled three Russian built Su-30MKM fighters of the Royal Malaysian Air Force (RMAF). This is the first publicly acknowledged refuelling of the type made by a USAF KC-135.

The USAF tanker was from the 141st Air Refueling Wing of the Washington Air National Guard (WANG), based at Fairchild Air Force Base. The refuelling took place while the 141st were involved in a State Partnership engagement at RMAF Subang Air Base in Malaysia. The aircrew aboard the KC-135 utilised the aircraft's multi-point refuelling systems (MPRS) to allow the refuelling using a probe and drogue system.

The USAF said: "Since 2017, the WANG has maintained a strong partnership with Malaysia, improving interoperability and integrated capabilities. Engagements like this reinforce initiatives led by our allies and partners, projecting strength by utilizing both distinctive US capabilities and those shared with allies and partners. Together, these efforts leverage cultural, strategic, and operational advantages that are essential to our shared objectives in the Indo-Pacific region."

Odd Couple



DGA

THE FRENCH Directorate General of Armaments (DGA) shared an image on November 27 of a Marine Nationale Dassault Rafale M refuelling a French Air & Space Force A400M in an unusual coupling of buddy-to-buddy air-to-air (AAR) refuelling. The Rafale was using a new-generation pod to refuel the much larger aircraft behind it. The test was understood to be to assess the pod for the future usage with the E-2D Hawkeye when it enters service.

The A400M was utilised as a surrogate aircraft due to similar speeds to the E-2D whilst refuelling. The E-2D will be operated in replacement to the E-2C which is not AAR capable.

B-52s simulate weapons drop over Europe

Fighter jets from Finland and Sweden joined forces with two USAF B-52s to carry out a joint simulated attack over Finland for the first time ever on November 25.

Two B-52 Stratofortresses assigned to the 20th Expeditionary Bomb Squadron operating from RAF Fairford conducted a simulated weapons drop as part of a Bomber Task Force 25-1 training mission in Finland. During the mission bombers integrated with Finnish F/A-18C Hornets and Swedish Air Force Saab JAS 39 Gripens.

The mission, codenamed Exercise Apex Jet, showcased Finland's growing role within the NATO alliance and marked another milestone in strengthening collective defence. The event also enabled US forces to learn from their Finnish counterparts, following austere landing demonstrations in September and participation in the Ramstein Air Base 1v1 air superiority exercise in June.

General James Hecker, commander of US Air Forces in Europe – Air Forces Africa, said: "This Bomber Task Force mission exemplifies our unwavering commitment to our European allies and partners."

10 years of RAF A400M

MOD/Crown Copyright

A CEROMONY has been held at RAF Brize Norton to mark the tenth anniversary of the Airbus A400M entering service with the RAF.

Since the first of the 22-strong fleet of aircraft was delivered to the Oxfordshire base on November 17, 2014, Airbus, Atlas has repeatedly proven itself on a range of operations.

The aircraft excelled during relief operations in the Caribbean and contributed fully to the military response to COVID-19, transporting patients, equipment and vaccines. It played a pivotal role in the evacuation of entitled personnel from Afghanistan and Sudan, and most recently airdropped supplies in Gaza.

Operated by four squadrons at RAF Brize Norton, an Atlas is also based in the Falkland Islands providing maritime reconnaissance, search and rescue, and medical evacuation cover in the South Atlantic. With the benefit of air-air refuelling, Atlas can also airdrop supplies in Antarctica.

Last year an RAF Atlas carried out the longest-ever flight of the type flying non-stop for 22 hours from RAF Brize Norton to Guam in the Pacific. Commander Air Wing, Gp Capt Andrew McIntyre said: "The Atlas has consistently demonstrated superior strategic capabilities and versatility for the many challenging missions faced by the RAF. Its range, altitude, speed, payload and tactical performance has proven invaluable in humanitarian missions over the past ten years, including the Caribbean, Afghanistan, Sudan, Middle East, not to mention protecting Europe's Eastern flank and life-saving rescue missions in the South Atlantic."

The USAF's New KC-46 Demo Team

THE 56TH Ariel refuelling squadron debuted at the Wings and Warriors Fly-In in San Marcos, Texas, on November 9, with the all-new next-generation refuelling aircraft, the KC-46A Pegasus. The demonstration conducted a few fly-bys showing the capability of the new aircraft and how agile it is, along with the slow-speed flying capabilities of such a massive aircraft. The team did multiple passes with one high-speed pass with the boom arm down and a low-speed pass with flaps down and gear down, showing the aircraft's versatility. Although only taking part in one show this year, the aircraft and team plan on hitting the road in the future, attending more airshows and showing more crowds how versatile this aircraft is.

Romania becomes 20th F-35 Alliance Member

Lockheed Martin announced today that the Government of Romania has confirmed its intent to procure 32 F-35 Lightning II aircraft. Romania signed a letter of offer and acceptance through a US Foreign Military Sale. The F-35 will augment Romania's current Lockheed Martin F-16AM/BM MLU Block 15 fleet. No dates for delivery or expected entry into service were mentioned in the LM press release.

Airbus Helicopters delivers first of 82 German H145Ms

THE FIRST H145M has been delivered to the German Armed Forces less than a year after the contract between the Bundeswehr and Airbus Helicopters for 82 (62 firm and option for 20 more) H145M was inked. This is the largest existing order for the type and includes seven years of support and services. The German Army will get 57 aircraft, while the Luftwaffe Special Forces will get five.

Named by the German Armed Forces, the H145M Leichter Kampfhubschrauber (LKH) – meaning Light Combat Helicopter – will perform training, reconnaissance, special forces operations and light attack roles for Germany. The H145M can easily be configured into a light attack role with axial ballistic and guided weapons to a special operations helicopter with fast repelling equipment and external cargo capabilities, providing Germany with a true multi-role helicopter.

The first H145M will be dedicated to training at Bückeburg Air Base. The first H145 LHK in the light attack role is scheduled to be delivered next year.

Stefan Thomé, Managing Director of Airbus Helicopters in Germany, said: "We remain a reliable partner of the German Bundeswehr. Delivering the first H145M LKH in less than a year after the contract signature demonstrates our commitment. The H145M LKH will be a true multi-mission asset for the German Armed Forces, supporting their crucial missions."

Airbus Helicopters

Gray Eagle STOL makes first flight from ship to land

GA-ASI

ON NOVEMBER 12, General Atomics General Atomics Aeronautical Systems, Inc. (GA-ASI) performed a milestone in aviation. The company's Gray Eagle UAS took off from a South Korean Navy amphibious landing ship *Dokdo* which was off the coast of Pohang, South Korea and landed on the runway at Pohang Navy Airfield.

"We applaud the South Korean navy for its foresight in examining the unique capability of GE STOL for its fleet. This demonstration illustrates the ability of the GE STOL to safely operate on many types of aircraft-capable ships, which opens myriad new ways our allies can use this UAS to support multi-domain naval operations," said GA-ASI CEO Linden Blue.

The Republic of Korea Ministry of National Defence is currently evaluating the Gray Eagle STOL for its military requirements and officials from the South Korean Navy and Army were present to evaluate the test from the ship.

"The demo highlighted the versatility of STOL aboard a warship, in the *Dokdo*, designed not for fixed-wing aircraft but solely for helicopters. Gray Eagle STOL's flight proves that navies can add significant new capability without costly major modifications to their existing warships," said South Korean Chief of Naval Operations, Admiral Yang Yong-mo.

NEWS IN BRIEF

New A330 MRTT for UAE

The United Arab Emirates (UAE) Air Force has received the first of two additional A330 MRTT aircraft at Al Ain Air Base in Abu Dhabi. This aircraft is part of an order the UAE placed with Airbus Defence and Space in December 2021 for two more additional MRTTs, increasing its fleet to a total of five.

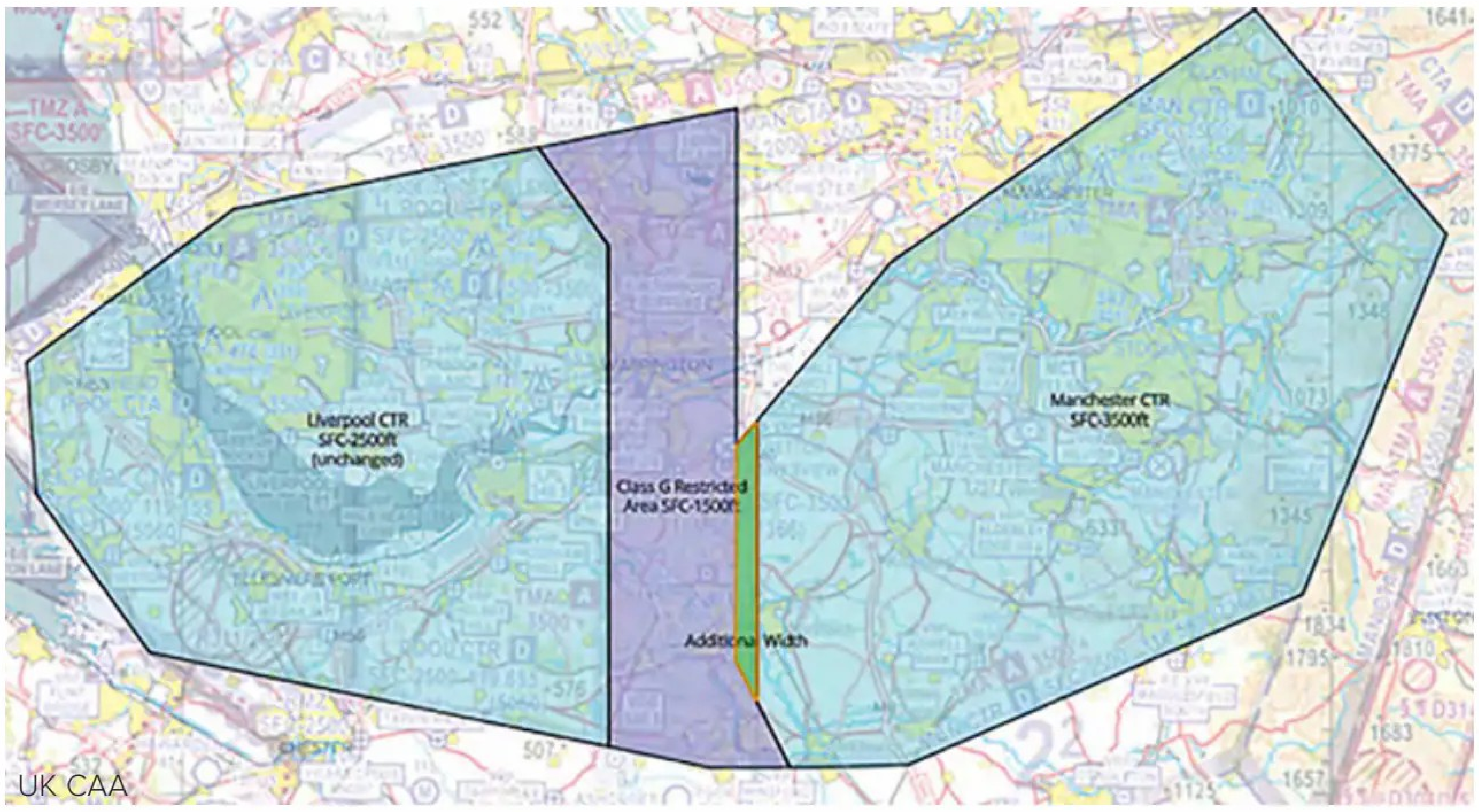
Ex Yorknite at Leeming

RAF Leeming welcomed Swiss Air Force F/A-18 Hornets and personnel for the annual night flight training exercise on November 11. The exercise ran until December 6 and saw the Swiss jets work mainly in the north of the UK making use of low flying areas and ranges for training objectives. The exercise allows the Swiss to also work at night with its RAF and USAFE partners as back home during these months night flying is restricted.

New base for RCAF Husky update

On November 12 the Government of Canada released an update on the new operating base for the RCAF CC-330 Husky fleet. The fleet of nine is to be split into two, with Main Operating Base (MOB) -East being 8 Wing in Trenton, Ontario. The government is currently negotiating with Edmonton International Airport to formalise an agreement for the airport to be the location of MOB-West. The new location will include a hangar, operations, maintenance, logistics and training spaces to support the CC-330 operation. This investment is part of Canada's $(CAD)38.6bn NORAD modernization plan.

New Low-Level Route Approved



UK CAA

ON NOVEMBER 20, the UK Civil Aviation Authority (CAA) approved the changes to the Manchester Low-Level Route. This will now be named the North West Transit Corridor and reclassified as Class G airspace from the current Class D airspace.

Starting February 20 next year (2025), the change simplifies the airspace, mitigates collision risks and enables general aviation aircraft to navigate between Manchester and Liverpool Airports which will enhance both efficiency and safety. The max altitude provided will be 200ft higher than the previous corridor, and the airspace will be 0.65 nautical miles wider to the east than the current low-level corridor.

Gulfstream programme makes 300th delivery

Gulstream Aerospace Corp.

GULFSTREAM AEROSPACE Corp. announced on November 25 that its G500 and G600 programmes had made their 300th customer delivery. The whole fleet of active G500 and G600s also surpassed 100,000 flight hours in June this year. The two types also received FAA approval for steep-approach operations, allowing both to access to more airports around the world, including the most challenging.

Mark Burns, President of Gulfstream, said: “Delivering 300 aircraft is a clear indication of strong interest in the G500 and G600 around the world. Thanks to investments from our parent company, General Dynamics, these aircraft continue to achieve new milestones as customer demand remains steadfast. The advanced efficiencies established by this program have provided us with the flexibility to expand our production line, supporting the success of our next-generation fleet well into the future.”

CAA Approval for Elixir

Elixir

FRENCH MANUFACTURER, Elixir Aircraft announced on November 6 that its training aircraft had been approved by the UK CAA. The aircraft is already certified by the EASA in the CS-23 category (aircraft from 2-19 seats) but now it can also be operated under UK Registration (G-reg). This allows the aircraft to be operated by flight schools in the UK.

The type is already in operation at flight schools in France including Airbus Flight Academy. Also announced on November 6, Greek flight school Egnatia Aviation placed an order for 12 Elixir aircraft with an option for three more, with delivery of the first six planned as early as next year. Other flight schools from nations including Portugal and Spain, are thought to have also placed orders

In addition to the UK approval, Elixir aircraft is now planning to gain FAA approval in order to fulfil 300 orders for the aircraft from American customers. **Read more about this trainer in the next issue of *Aviation News*.**

Silver Aviation picks up new PC-24

Silver Aviation

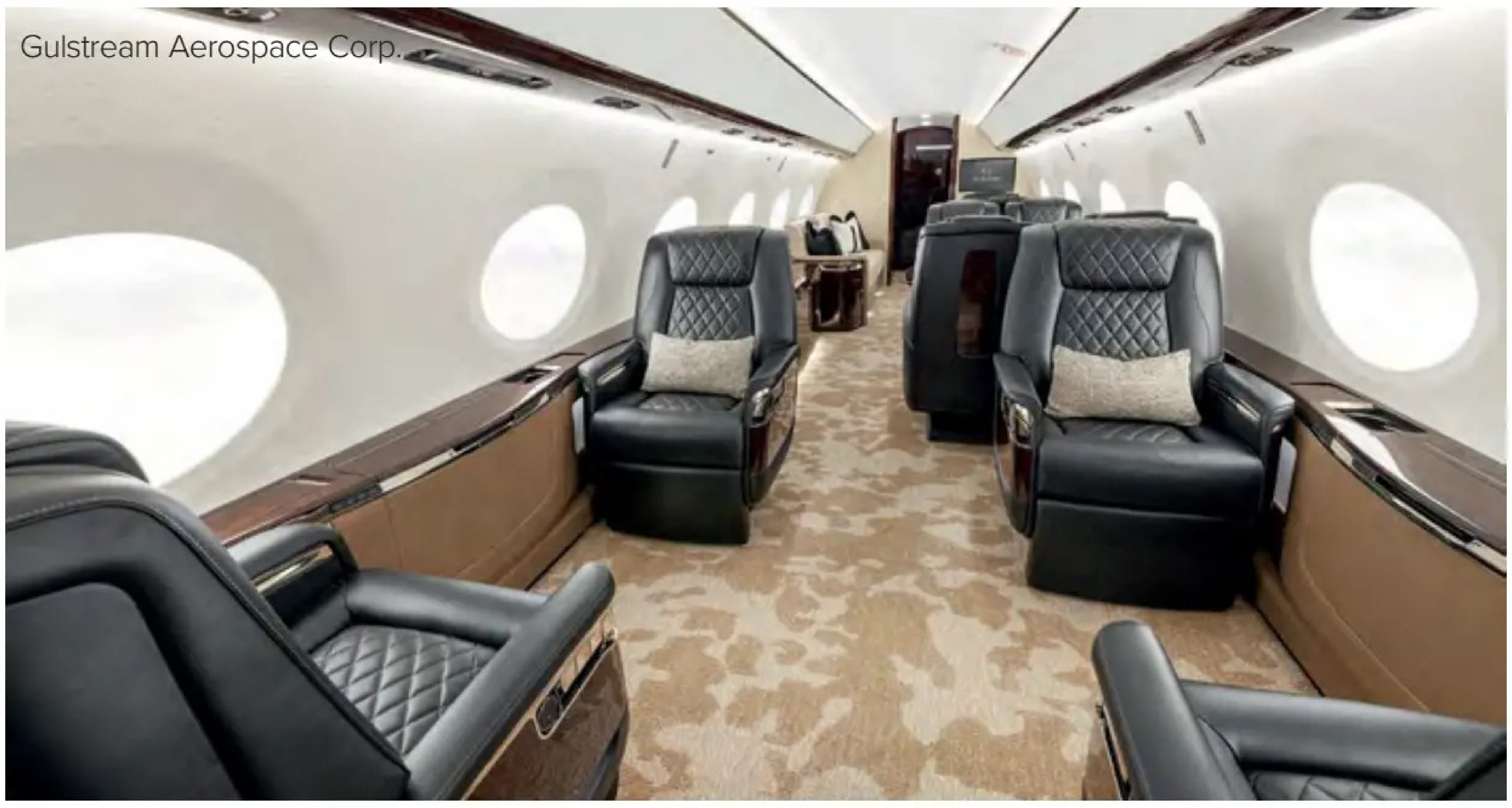
MANCHESTER BASED executive charter company Silver Aviation picked up its Pilatus PC-24 aircraft on December 2, from Buochs Airfield in Switzerland. The brand-new twin-engine PC-24 will complement the current two PC-12 NGXs (G-MDSZ/G-MDSE) in operation at Manchester Airport and Biggin Hill.

T7-VITA, serial No54, was due to land at Manchester for delivery on December 5 at the time of writing. The addition of the PC-24 to Silver Aviation's fleet will provide its customers with shorter flight times to a variety of destinations around Europe.

G800 with interior outfitted takes flight

GULFSTREAM AEROSPACE Corp. announced on December 2, that its longest-range aircraft to date – the G800 capable of flying 8,000nm – took flight for the first time on November 27 with its cabin interior outfitted.

The test flight saw the G800 climb to 46,000ft and reach a top speed of Mach 0.91. The outfitted aircraft joins two other G800s dedicated to tests in the certification programme. They do not have a cabin interior installed. The latter will be tested throughout many phases of flight and missions such as overnight trips, turbulence and hot and cold weather scenarios.


Gulstream Aerospace Corp.

Sea Dragon for Florida museum

▲ *Dragon 437* flew several approaches on arrival to Titusville on October 16, before being welcomed with a traditional water cannon salute Valiant Air Command-Rob Shaw

On October 16, the Valiant Air Command (VAC) at Titusville in Florida welcomed its latest acquisition: former US Navy Sikorsky MH-53E Sea Dragon BuNo 160633. *Nicknamed Dragon* 437, the airframe, which entered USN service in 1983, has been placed on permanent loan to the VAC from the National Naval Aviation Museum on behalf of the Navy History and Heritage Command. Delivered direct to its new home by its final operational squadron, Helicopter Mine Countermeasures Squadron 12 (HM-12) at Naval Air Station Norfolk in Virginia, this is the first example of the dedicated Airborne Mine Countermeasures and Navy heavy lift/vertical onboard delivery platform to be displayed in a museum. Officially presented to the museum that same day, the helicopter will undergo demilitarisation before being exhibited.

Remembering Richard Grace

The historic aviation community was united in sadness at the news of Richard Grace's passing on October 15, aged 40. A cornerstone of the UK warbird scene, Richard was both a pilot and an engineer and was the operator and director of Sywell-based Air Leasing and Ultimate Warbird Flights. Our thoughts are with Richard's wife, Daisy, their two children, Allegra and Stirling, and his sisters, Olivia and Nicola. Blue skies, Richard.

Tornado arrives at Solway

On November 5, the Solway Aviation Museum, located within the footprint of Carlisle Lake District Airport in Cumbria, took delivery of its latest acquisition, former RAF Panavia Tornado GR.1 ZA475. The aircraft was donated to the collection by the Electronic Warfare Tactics (EWT) facility at nearby RAF Spadeadam, where it had been planned to be used as a gate guardian to the station's operations site. The move, made possible with the assistance of the RAF Heritage team, was completed by the Ministry of Defence's Joint Aircraft Recovery and Transportation Squadron and Lawsons Haulage Ltd.

Rolling off British Aerospace's production line at Warton in Lancashire, ZA475 flew for the first time on November 15, 1983. Delivered to the RAF on January 12, 1984, it served across the Tornado Force until being withdrawn in 2001 and placed on the gate at Scotland's RAF Lossiemouth on December 19 the same year, wearing the markings of the resident Tornado squadrons. Remaining there until 2023, it was replaced by another airframe due to extensive signs of ageing and corrosion. Moved to Spadeadam for gate guardian duties, plans changed when the airframe's location proved problematic for resident unts. It was decided to move the aircraft to the EWT range as a static target, before negotiations with the RAF Heritage Team ensured its future at Solway.

Wing Commander Matt Lawrence, the station commander at RAF Spadeadam, said: "It's sad to see it go, but I'm very glad it will be on display for the public to see at Solway Aviation Museum, which is a centre of excellence for aircraft restoration".

After being handed to Dougie Kerr, chairman of Solway Aviation Museum, ZA475 leaves RAF Spadeadam for the final time on November 5 RAF Spadeadam

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Aries II for Pima

The 'Hainan incident' EP-3E Aries II, BuNo 156511, is towed into the Pima Air and Space Museum on October 22 John Bezosky

The ever-expanding Pima Air & Space Museum in Tucson, Arizona, added a Lockheed EP-3E Aries II, BuNo 156511, to its ranks on October 22, 2024. The former US Navy machine was towed across from the 309th Aerospace Maintenance and Regeneration Group's huge storage facility at nearby Davis-Monthan Air Force Base, where it had arrived two days before.

One of just 12 examples of the land-based multi-Intelligence reconnaissance platform based on the P-3 Orion airframe, BuNo 156511 gained notoriety when it was involved in what is now known as the Hainan Island incident on April 1, 2001.

Then assigned to Fleet Air Reconnaissance Squadron One (VQ-1 'World Watchers'), the aircraft, operating from Japan's Kadena Air Base with 24 crew onboard, was flying a routine electronic intelligence sortie in international airspace over the South China Sea when it was intercepted by a pair of People's Liberation Army Naval Air Force Shenyang J-8IIM Finback fighters scrambled from Lingshui on the Chinese island of Hainan. On its third pass, one of the Finback s collided with the Aries II flying straight and level at 22,000ft and 180kt. The collision threw the EP-3E into a snap roll followed by an uncontrolled dive, with the aircraft plummeting some 14,000ft before the pilot, Lt Shane Osborn, could recover it. While the Chinese pilot, Lt Cdr Wang Wei, managed to eject from his disintegrating interceptor he was never seen again and was posthumously honoured as a Guardian of Territorial Airspace and Waters. Incredibly, Osborn opted to land the seriously damaged EP-3E at Lingshui airfield, some 70 miles away, with no permission, sans flaps and radome, a dead engine and a malfunctioning propeller, as well as no working airspeed indicator or altimeter, triggering a diplomatic stand-off between the US and China.

The 24 crew members were detained and interrogated by the Chinese for 10 days before being released on 11 April 11. As for the EP-3E, most of the sensitive equipment and classified material were destroyed by the crew during the 26 minutes between the collision and its unannounced arrival at Lingshui. It was later dismantled by a team from Lockheed Martin and transported back to the US aboard a pair of civilian Antonov An-124 airlifters. There it was rebuilt and returned to service on November 15, 2002.

Work will now be undertaken to demilitarise the machine and prepare it for public display. The announcement the aircraft was to be placed in a museum triggered outrage on Chinese social media platforms.

Defiant laid to rest at museum

After falling short of winning the Future Long-Range Assault Aircraft (FLRAA) to the Bell V-280 Valor tiltrotor almost two years ago, the Sikorsky-Boeing SB>1 Defiant helicopter has been put on permanent display at the Army Aviation Museum at Fort Novosel in Alabama. The Defiant was fitted with Sikorsky's X2 technology, which the company has developed over the previous 20 years. The X2 faced a setback when the US cancelled the Future Attack Reconnaissance Aircraft (FARA) programme, which the company bid with its S-97 raider, a smaller version of the Defiant. Despite this, the S-97 has potential in future programmes like the NATO Next Generation Rotorcraft Capability (NGRC).

Work to save 'Big Bev' recognised

Carlise's Solway Aviation Museum in Cumbria has been awarded the Aviation Heritage United Kingdom's Robert Pleming Memorial Award in recognition of its epic undertaking to save Blackburn Beverley C.1 XB259, the last complete example of post-war RAF airlifter. Considered one of the highest accolades among the aviation heritage community, the award was presented to Solway Aviation Museum chairman Dougie Kerr by British aviation legend Martin Withers at a ceremony held at the Yorkshire Air Museum at Elvington near York on October 26. The aircraft was donated to the museum in early 2024 following several failed attempts to save it after the closure of its Fort Paull home on the north bank of the Humber in Kingston-upon-Hull. More than £80,000 was raised to preserve, dismantle and transport the aircraft more than 180 miles by road to Carlise – a hugely complex process given the Beverely has a wingspan of 162ft, is nearly 40ft tall and 100ft long and weighs 36 tonnes!

It was this rescue mission that ultimately saved the machine – nicknamed Big Bev – from the scrapyard. Kerr said: "It's the highest award you can get within the aviation heritage UK fraternity – it's tremendous to be recognised. No one else took it on and that's why we have it now."

With the aircraft now relocated to Solway, work continues on its preservation and rebuild – volunteers are currently focusing on the cockpit, before turning their attention to the wings.

▲ The Solway Aviation Museum's epic efforts to save XB259 – seen here being dismantled at its former Fort Paull home last year – have been rightly recognised Solway Aviation Museum

Made in Britain

Chris Gilligan visits the Leonardo UK site in Yeovil where he speaks to Managing Director Adam Clarke about the exciting past and future of British built rotary-wing aircraft

▼ First flying in 1947, despite 180 Sycamores being built, this Flying Bulls example is the last remaining airworthy Sycamore in the world
All images Chris Gilligan unless stated

DANGER
XL 812
ARMY
BEWARE ROTOR BLADES

▲ The Saunders-Roe Skeeter was the first helicopter operated by the Army Air Corps in the aerial observation role

It is late 1941, as war rages across Europe, aircraft manufacturers and their respective factories have almost completed the 20,094th aircraft to be rolled out that year and thrown straight into action. Under pressure, bombarded and under resourced, things will only get tougher. At the beginning of the following year, Sikorsky's test pilot, Les Morris, undertook the first flight of the XR-4 helicopter which would revolutionise the way the British Military would fight, supply, evacuate and transport in the future.

Although the Royal Air Force (RAF) had employed several Cierva autogiros earlier in the war for tasks such as radar calibration, the machine developed by Dr Igor Sikorsky had caught the eye of the British and later, 25 R-4 Hoverflys were ordered.

Although the Hoverfly/Gadfly (as it was known in the RAF/RN respectively) became the first hypothetical helicopter to be used by the military, its load capability and relatively low power meant that the services were far from blown away by this new concept. It did, however, pave the way for a more capable machine, the Bristol Sycamore.

▼ Part of a production run of over 360, this Westland Whirlwind HAR10, owned and operated by Historic Helicopters, is the world's only airworthy example

RAF
RESCUE
ROYAL AIR FORCE
RESCUE

▲ Based on the Sikorsky S-58, the license-built Westland Wessex saw great export success, seeing service all around the world

Building British

Bristol Aeroplane Company, founded in 1910 as British and Colonial Aircraft Company, established their own helicopter division in 1944 with the guidance of Raoul Hafner, the Austrian-born rotorcraft pioneer.

In June 1944, work began on the development of the Bristol Type 171. It was out of this program that the Sycamore would emerge. First flying in 1947, in 1949 the type became the very first British built helicopter to be issued with a certificate of airworthiness and rapid production of the type began at their manufacturing site at Weston-Super-Mare, Somerset. Entering service with the RAF in April 1953, it became a big success, excelling in the search and rescue role both at home and overseas. The type began to receive export orders and eventually served with the militaries of Australia, Belgium and West Germany with 180 machines built in total.

Westland's successes

Roughly 50 miles southeast of Bristol's facility, in Yeovil, Westland Aircraft Limited had begun to see the huge potential of helicopters. As with Bristol, Westland had already achieved great success in the aircraft manufacturing sector, but in 1946, when they negotiated a licence agreement with Sikorsky to produce the type S-51 in the UK, the company began to alter its direction.

The Westland S-51 flew for the first time in 1948. It was almost a complete redesign and was powered by a British-built Alvis Leonides radial piston engine. Christened the Dragonfly, the type was the first UK-built helicopter to enter service when it was adopted by the RN. Production finally ceased in 1953 after a run of 139 machines and proved to be the first of many successful licence-built and indigenously redesigned Sikorsky types by the company.

Saunders-Roe

By the early 1950s, the versatility of the helicopter and its potential for growth had been acknowledged widely. Having pioneered the concept early on, the Cierva Autogiro Company was taken over by Saunders-Roe (SARO) in 1951. SARO continued with Cierva's early work on the W.14 and development of what would become the Skeeter continued at pace. During the late 1950s, the type entered service with the British Army Air Corps (AAC) and gained the distinction of being the first helicopter to be used by the AAC.

The merger

With all three armed forces now employing helicopters and beginning to reap the rewards, the train was well and truly set in motion, however, the boom of industry and production of the 1950s began to give way to consolidation in the 1960s. With the

▶ Arguably, the Sea King became the most successful of the Sikorsky licence agreements

▼ Entering operational service in 1977, the Westland Lynx is still operated all over the globe to this day

majority of fixed wing aircraft production falling to British Aircraft Corporation (BAC) and the Hawker Siddley group, the helicopter divisions of Bristol, Fairey (which had gone on to develop the infamous 'Rotordyne') and SARO were merged with Westland Aircraft to form Westland Helicopters, Britain's sole helicopter company and the biggest manufacturer of helicopters in Europe.

Following the merger, the order books were looking incredibly healthy for Westland, with numerous Wessex, Wasps and Scouts entering production. The partnership with Sikorsky continued, following the great success of the Dragonfly, and later, the licence-built S-55 which became the Whirlwind in UK service. Redesigns and the incorporation of many improvements such as the introduction of gas turbine engines meant that these machines garnered much interest from overseas militaries. Between both the Whirlwind and Wessex (Itself a licence-built version of the Sikorsky S-58), a production run of over 750 included exports to countries such as Canada, Italy and Australia, as well as countries in the Middle East and South America. Westland Helicopters had become a truly global company, putting British helicopter manufacturing on the map.

French connection

The British army requirement for a multirole helicopter to replace the Westland Scout was announced in 1964. The requirement was met through partnership with the French company Sud Aviation (later Aerospatiale). The collaboration consisted of three 'clean slate' designs that would become the Puma, Gazelle and Lynx.

Aerospatiale were originally to become responsible for the design of the Puma and Gazelle, while it fell to Westland to design, build, and develop the Lynx.

First flown in 1971, the Lynx was to become an enormous success, both at home and overseas. Its revolutionary design and technology saw over 450 built, with huge export success. In 1986, a modified Lynx set a world speed record for a helicopter over

▲ Designated the WAH-64D, the UK-built Apache was extensively used in Afghanistan

▼ Transferred from the RAF to the RN to replace the outgoing Sea King Mk4, Leonardo has recently completed the Merlin upgrade to Mk4/4A standard which includes new cockpit avionics and ship optimisation features

▲ Recent activity at Leonardo's site in Yeovil has included the design, development and delivery of the AW101 SAR Queen for Norway, as well as the Crowsnest AEW system for the Merlin Mk2s of the RN

15km and 25km, flying at 249.09mph, a record that staggeringly still stands to this day.

The economic outlook of the 1980s in Britain began to look a lot less rosy. The company itself gradually fell into unprofitability. A rescue deal was struck in 1986 with Sikorsky and was then followed by a 22% share purchase by GKN of the UK. In the 1990s the company returned to profitability and grew thanks to several major contracts from the UK MOD, including one for EH/AW101 Merlin helicopters and 67 licence-built Boeing AH-64 Apache attack helicopters.

After becoming a wholly owned subsidiary of GKN in April 1994, GKN and Finmeccanica of Italy agreed in 2000 to merge their Westland and Agusta helicopter subsidiaries into a joint venture – AgustaWestland – becoming the second largest helicopter company in the world, with a turnover of more than US$2bn and a workforce of over 10,000.

Enter Leonardo

Almost 110 years on from the formation of Westland Aircraft Works, the name above the factory windows of its Yeovil site may have changed, but the history, achievements, success and benefit to the UK industry remain. On May 26, 2004, GKN confirmed the sale of its share of Agusta Westland to Finmeccanica for $1.06bn. Keen to secure the future and prosperity of British helicopter manufacturing, the sale was approved by the British government in October 2004. The gradual restructuring of the company saw a rebrand and a change of name to Leonardo.

▶ Now cleared to carry and fire both the Marlet and Sea Venom missiles, the Wildcat has developed into an incredibly lethal and potent helicopter

◀ A Leonardo AW149 during a test flight. This could be a common sight above the UK if the company is successful in the NMH programme. Leonardo

Home of the British Helicopter

With a total of more than 3,300 helicopters manufactured, over 50% of the UK armed forces' frontline helicopters built on site, and an estimated contribution of £890m to UK GDP in 2023 alone, Yeovil is undeniably the home of British helicopters.

Leonardo is one of few organisations in the world – and the only one in the UK – with an end-to-end capability that includes design, development, manufacture, testing and certification of helicopters, as well as the subsequent training and support for customers, with 34 customers across 26 countries and over 500 aircraft supported by their facility worldwide.

Recent developments on site include the integration and extensive testing of a revolutionary 'weapon wing' onto the existing AW159 Wildcat to incorporate both the Marlet and Sea Venom missiles, making the Wildcat a lethal and potent threat. At the request of the RN, the team at Leonardo went through the incredibly complex development process which included vast amounts of structural and stress testing that all took place within the 'Centre of Excellence' facility on site.

It is hoped that the evolution of the AW159 will bolster its export appeal further after initial export orders from the armed forces of both the Philippines and South Korea.

Aviation News' visit coincided with the final AW101 destined for Norway being on the assembly line. This example will shortly be delivered, marking the completion of the contract to provide 16 new Mk612s to the Royal Norwegian Air Force for search and rescue (SAR) duties. A revolutionary capability, developed and included on the type, is the ability to track and locate someone in peril using mobile phone tracking technology.

Canada has operated the CH-149 Cormorant in similar terrain and situations to those found in Norway. In December 2022, a CAN$1bn contract was awarded to Leonardo for a Mid-Life Upgrade to bring the existing fleet of 13 Cormorants up to Mk612 standard as well as to provide three new build aircraft, the first of which is currently being assembled in the UK.

Looking further ahead, NATO's Next Generation Rotorcraft Capability (NGRC) program is in motion. NGRC will likely replace the AW101 and NH90 and will potentially be a fantastic opportunity for Leonardo UK. Naturally, the company is keen to be involved in the program and when *Aviation News* discussed this with Adam Clarke, Managing Director of Leonardo Helicopters UK, he stated: "I want us to lead and to shape it and to get the UK what it wants out of it. Our success is absolutely a fundamental part of that."

NMH programme

The 'Defence in the Competitive Age' command paper identified a requirement for a New Medium Helicopter (NMH) for the UK MOD back in 2021.

BRISTOW SAR

In conjunction with the fulfilment of military contracts, Westland Helicopters also found the civilian market to be lucrative. Born in Balham, South London, Alan Bristow had already lived an incredibly exciting life when, in 1944, he was sent to New York to learn to fly the Sikorsky R-4. Upon leaving the military just after the war, he was recruited as Westland Aircraft's very first helicopter test pilot.

Bristow went on to found Bristow Helicopters Ltd and acquired a pair of Westland Widgeon helicopters in 1955. Rapid expansion saw demand soar and it wasn't long before suitably modified Westland Whirlwind and Wessex helicopters were rolled out.

A growing fleet allowed greater ventures all over the globe and eventually permitted extension into the likes of civilian SAR, cargo transportation and pilot training. Now one of the largest civilian helicopter companies in the world, with a current global fleet of almost 500 machines, Bristow Helicopters Ltd currently operates ten SAR bases around the UK on behalf of the Maritime and Coastguard Agency (MCA) with a mixed fleet of Sikorsky S-92A and AW189. Originally built in the UK, all current Leonardo civilian helicopters are now assembled at their sister site at Vergiate, northern Italy, however, many components for the multiple civilian types, including the AW189, continue to be produced, tested and certified in the UK, continuing to benefit the UK industry and wider economy.

With a new long-term support and training agreement finalised between the two companies, the enduring collaboration, which is now into its seventh decade, looks set to continue far into the future.

COASTGUARD RESCUE
G-MC
HM COASTGUARD

Built by AgustaWestland, the civilian AW189 is currently operated by Bristow Helicopters Ltd and employed around the country with the Maritime and Coastguard Agency in the civilian SAR role James Penberthy

With the out-of-service date rapidly approaching for numerous types, three manufacturers originally competed for the contract, however, Airbus (offering the H175M) and Lockheed Martin (offering the S-70M Blackhawk) had both failed to submit a bid in time for the deadline, therefore withdrawing from the tendering process.

As the sole bidder remaining, a confident Clarke explained the merits of the AW149, its ability to excel as the UK's NMH, and the importance of the contribution the award of contract would make to the wider UK economy. "The NMH presents a fantastic opportunity for the UK," he said.

"The AW149 winning that competition and being under contract at some point next year will be fantastic for the site. From a technical perspective, we absolutely believe that the capability fits. From a price point and delivery perspective, it fits within the requirement. From a social value perspective, which is vital to UK taxpayers to ensure the best possible value for their money, it offers many opportunities for economic growth, tackling economic inequality and would also allow us to continue to support 'STEM' activities as well as further supporting our apprenticeship and graduate schemes with export potential of up to around 500 helicopters."

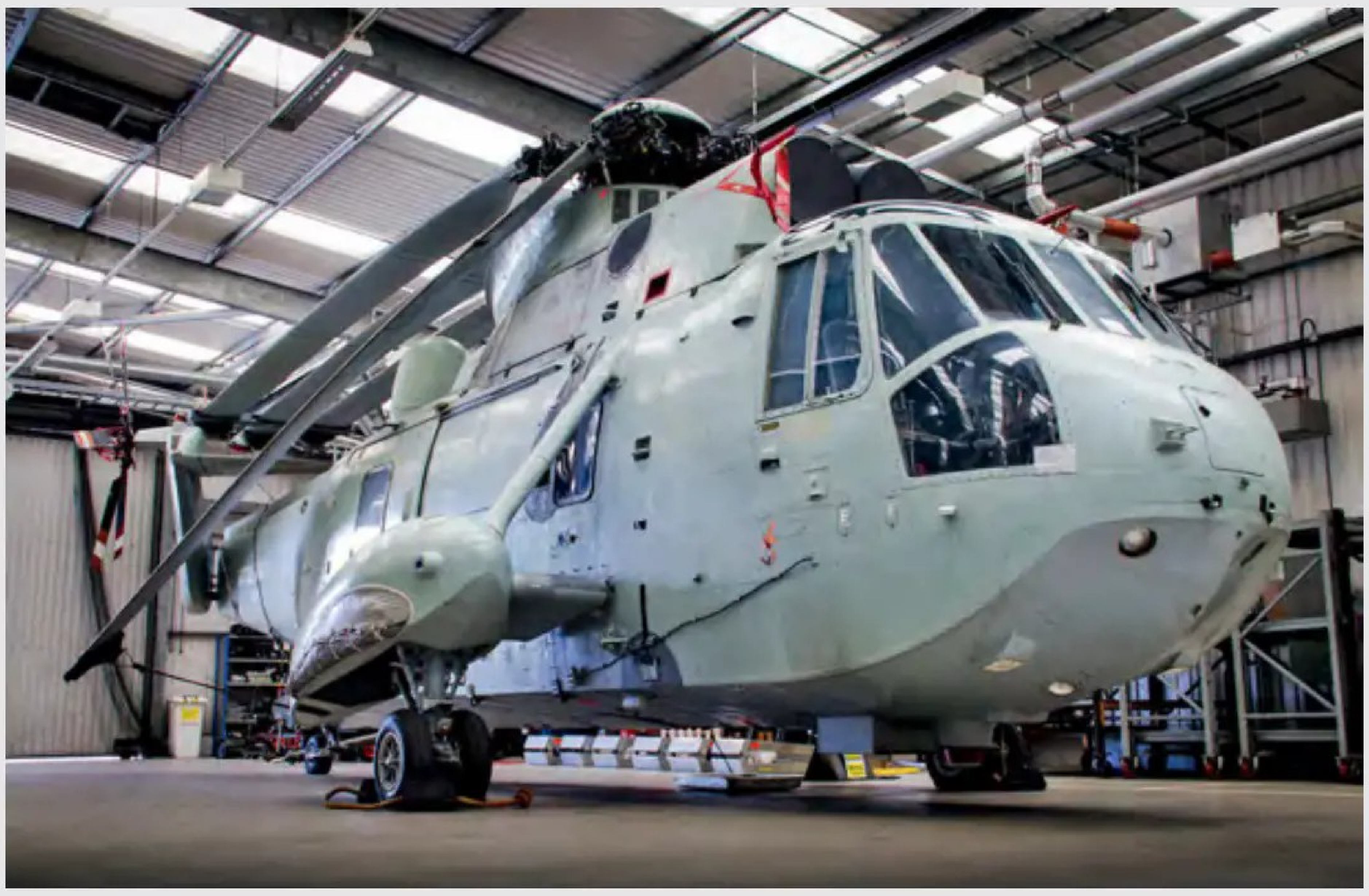
Speaking on the benefit of the British government selecting a helicopter built in the UK, Clarke said: "A really good example is when there are urgent operational requirements [UORs], often the UK government will need something to be adapted quickly and what you really want is your domestic industry to be able to do it because you know you'll get priority, whereas if you work internationally you have to hope you get priority and you don't always get that. Equally you want solutions to be generated

SEA KING

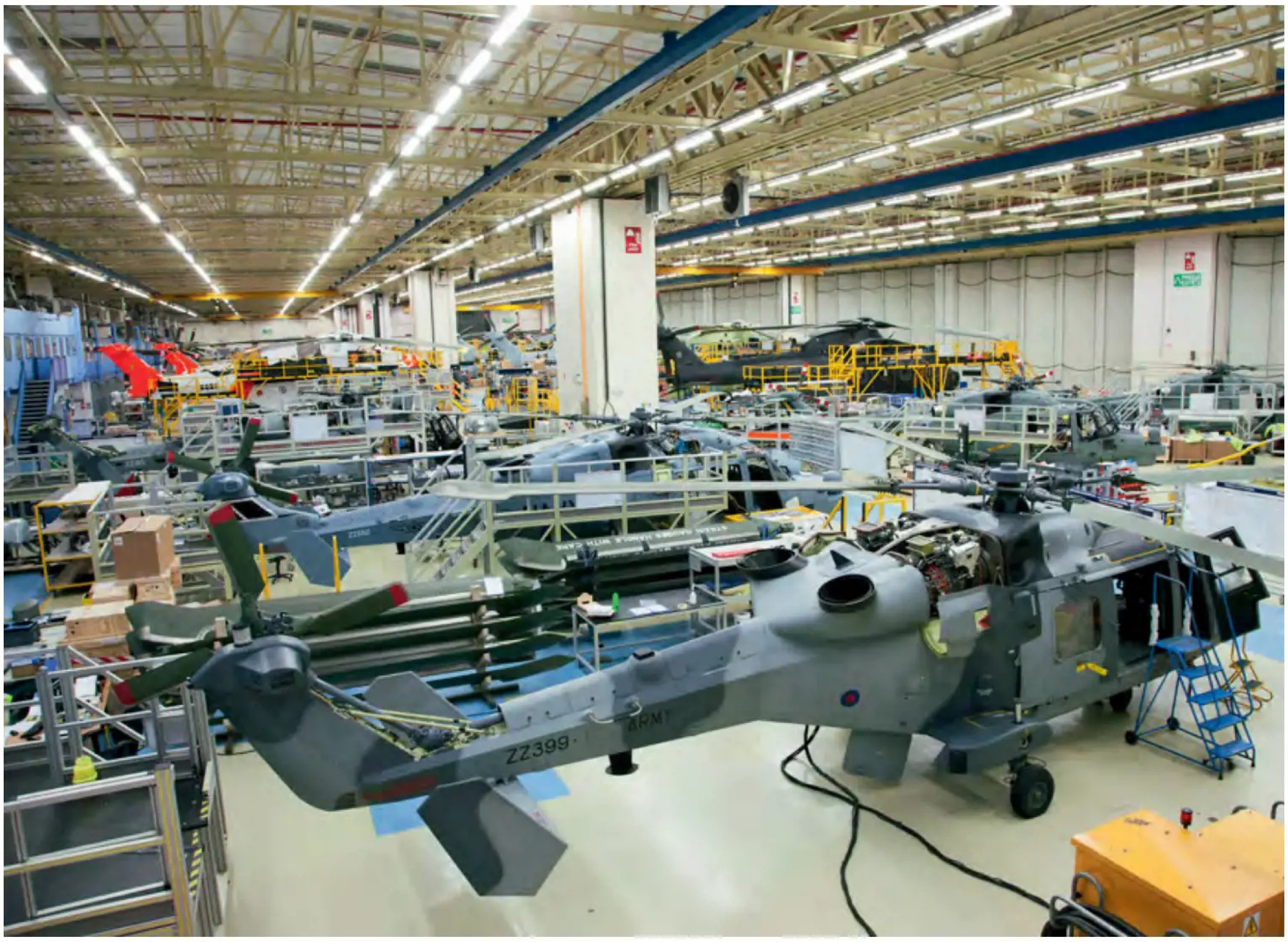
Arguably, the most fruitful of the major Sikorsky licence agreement deals was the British designed and built Westland Sea King, differing significantly from the American built S-61.

First flying in May 1969, development and evolution stretched across four decades, producing incredibly different machines altogether, from the SAR Mk3/3A/5s of the RAF and RN respectively, to the Mk4 Commando 'Junglie', all the way through to the ingenious (and urgently developed to counter the Argentine threat of the Falklands conflict) Mk6/7 Airborne Surveillance and Control (ASaC) helicopters with their innovative 'Bag' radar appendage.

Of the total number rolled off the Yeovil production line, perhaps some of the most instantly recognisable are the RAF and RN SAR variants. Maintaining a 24-hour SAR service covering the entire UK mainland and surrounding coastal areas, the lives saved by the iconic helicopter and its crews is believed to be more than 40,000.



The very first Sikorsky pattern aircraft delivered to the UK, G-ATYU/XV370 was flown from Avonmouth docks to Yeovil to become the first Westland Sea King prototype. It was later used comprehensively by the Empire Test Pilot School (ETPS) at Boscombe Down



◀ A glimpse behind the factory doors of Leonardo's modern day assembly line. Illustrated here is the diverse range of customers, including the navies of Britain, the Philippines and Brazil alongside the air forces of Norway and Italy. Leonardo almost on the spot which can be qualified quickly and certified quickly."

He continued: "We have had 57 UORs historically where we've come together, responded to a UK need, for example, put a new system on an aircraft, tested it, qualified it. We've got the certifications to allow us to do developmental flights because we have an aerodrome, we have test pilots and others who can manage that risk and try and qualify such that you can do that quickly which then allows you to release it into the air."

The Future

As we sit, overlooking the juxtaposition of the relatively unchanged airfield and the £30m state-of-the-art single site logistics hub, I ask Clarke about the future of Leonardo UK. "I believe in 50 years' time we will certainly still see helicopters similar to today's flying. The helicopters we supply, including the future AW149, have long periods of life. Also, with the potential for mid-life upgrades like we're seeing with the Canadian Cormorant, it will extend the life of the helicopters for another 30 years or more."

Clarke continued: "I think the uncrewed aviation industry will be interesting. We are currently developing the 'PROTEUS' technology demonstrator and plan to fly the new uncrewed system next year. I believe it has huge potential for the development of new sensors, capabilities and new ways of working. Further into the future, I can see both crewed and uncrewed systems working in tandem and I would like to see the site as an industry-leading technology park with various 'PROTEUS' derivatives flying from the site." AN

Aviation News would like to thank Leonardo UK for its time and support towards this feature.

▲ An archive image of the build and assembly line in Yeovil. Seen here are numerous Westland Lynx going through final assembly before flight test. Leonardo

I-RAIU
AW149
LEONARDO
▼ Should the AW149 be successful in its bid for the NMH contract, the UK would see great economic benefit

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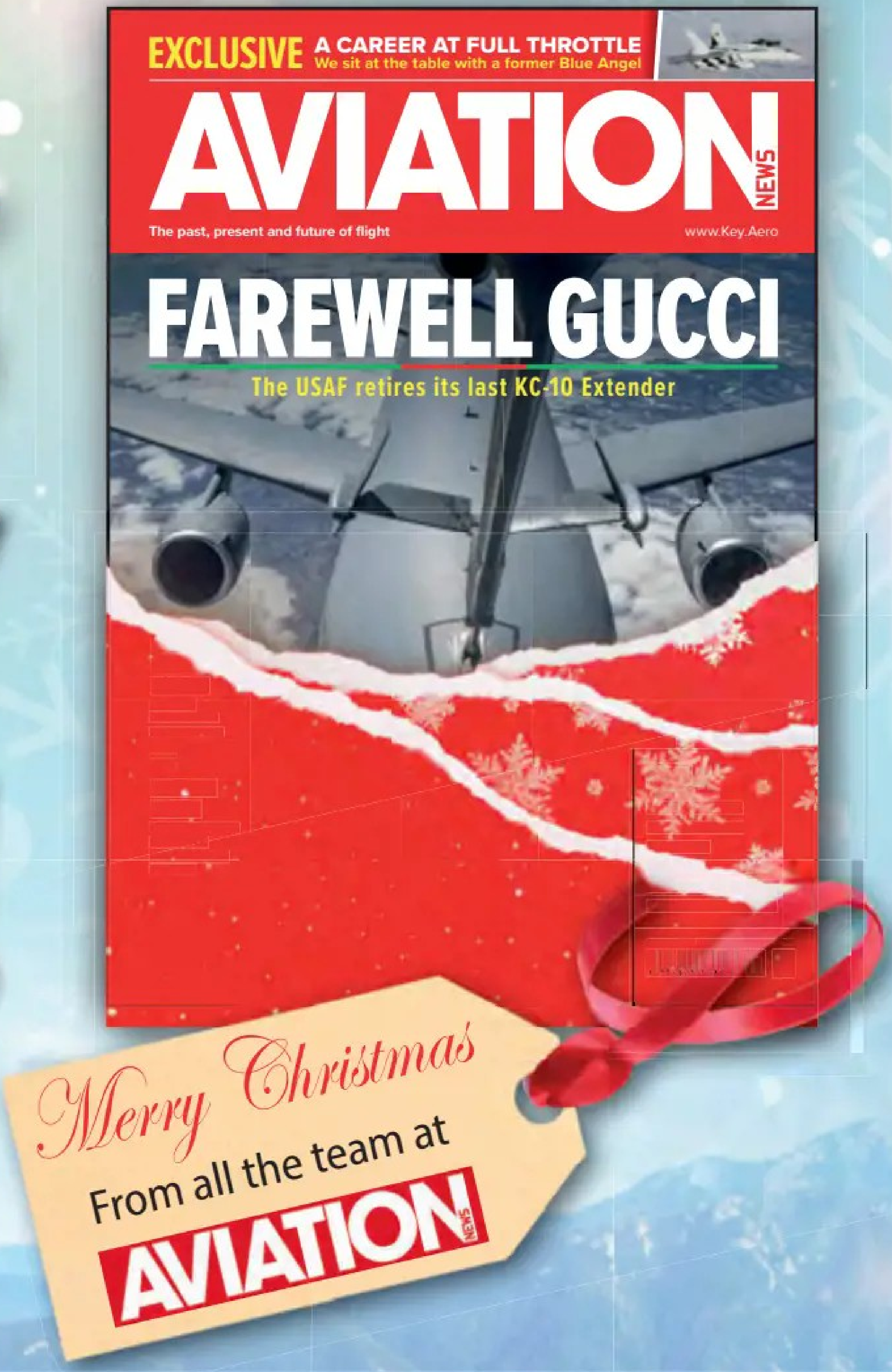
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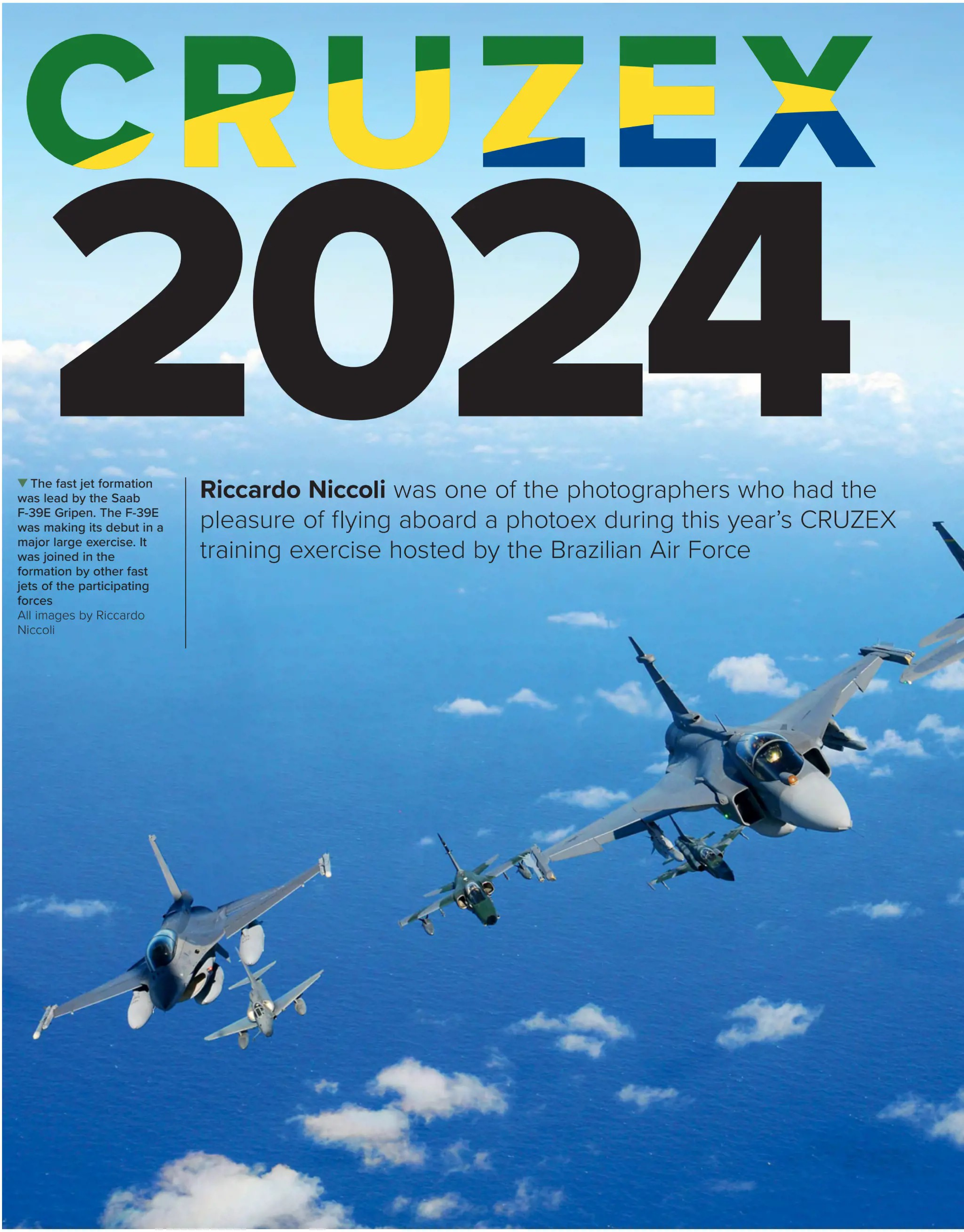
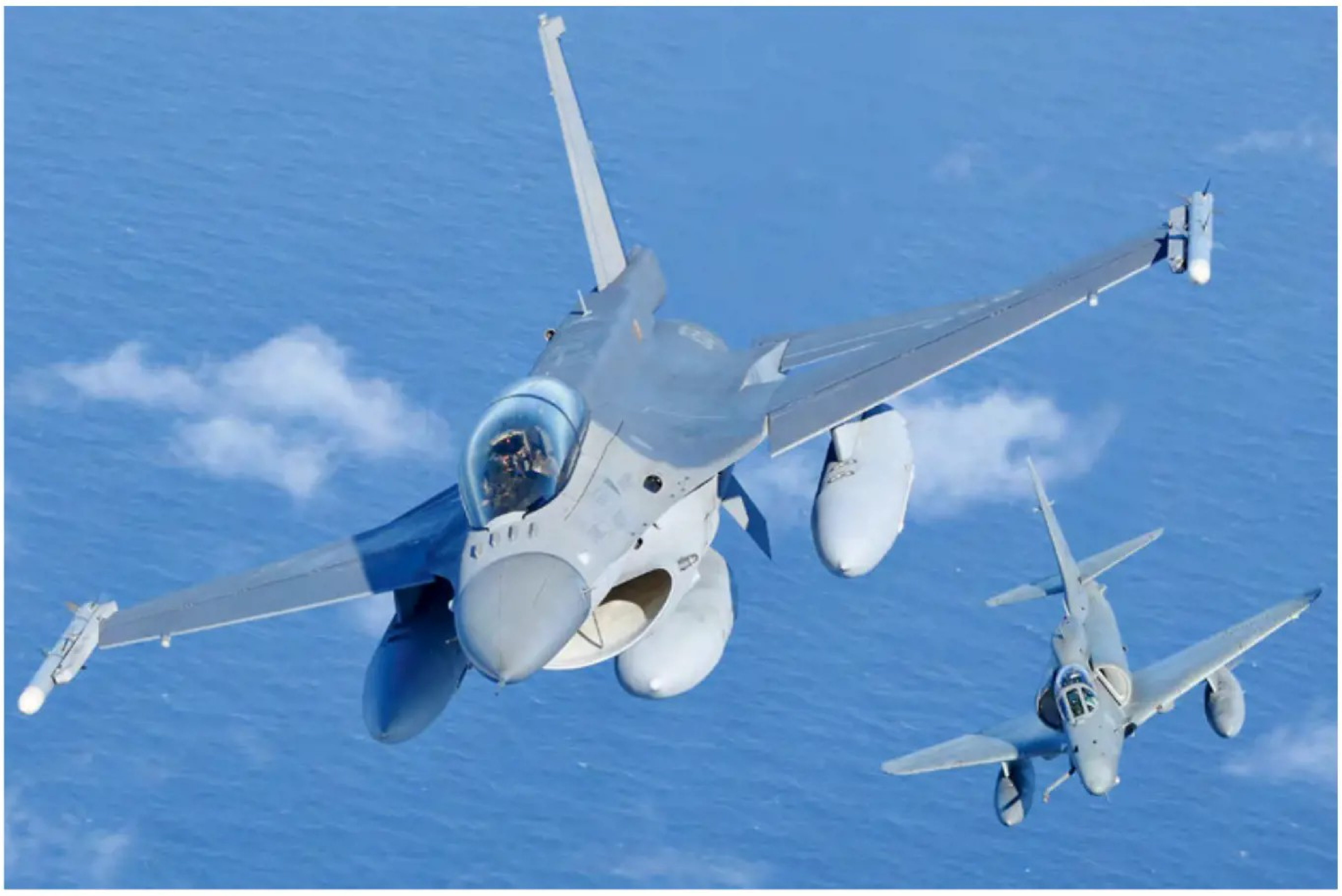
CRUZEX 2024



▼ The fast jet formation was lead by the Saab F-39E Gripen. The F-39E was making its debut in a major large exercise. It was joined in the formation by other fast jets of the participating forces
All images by Riccardo Niccoli

Riccardo Niccoli was one of the photographers who had the pleasure of flying aboard a photoex during this year's CRUZEX training exercise hosted by the Brazilian Air Force

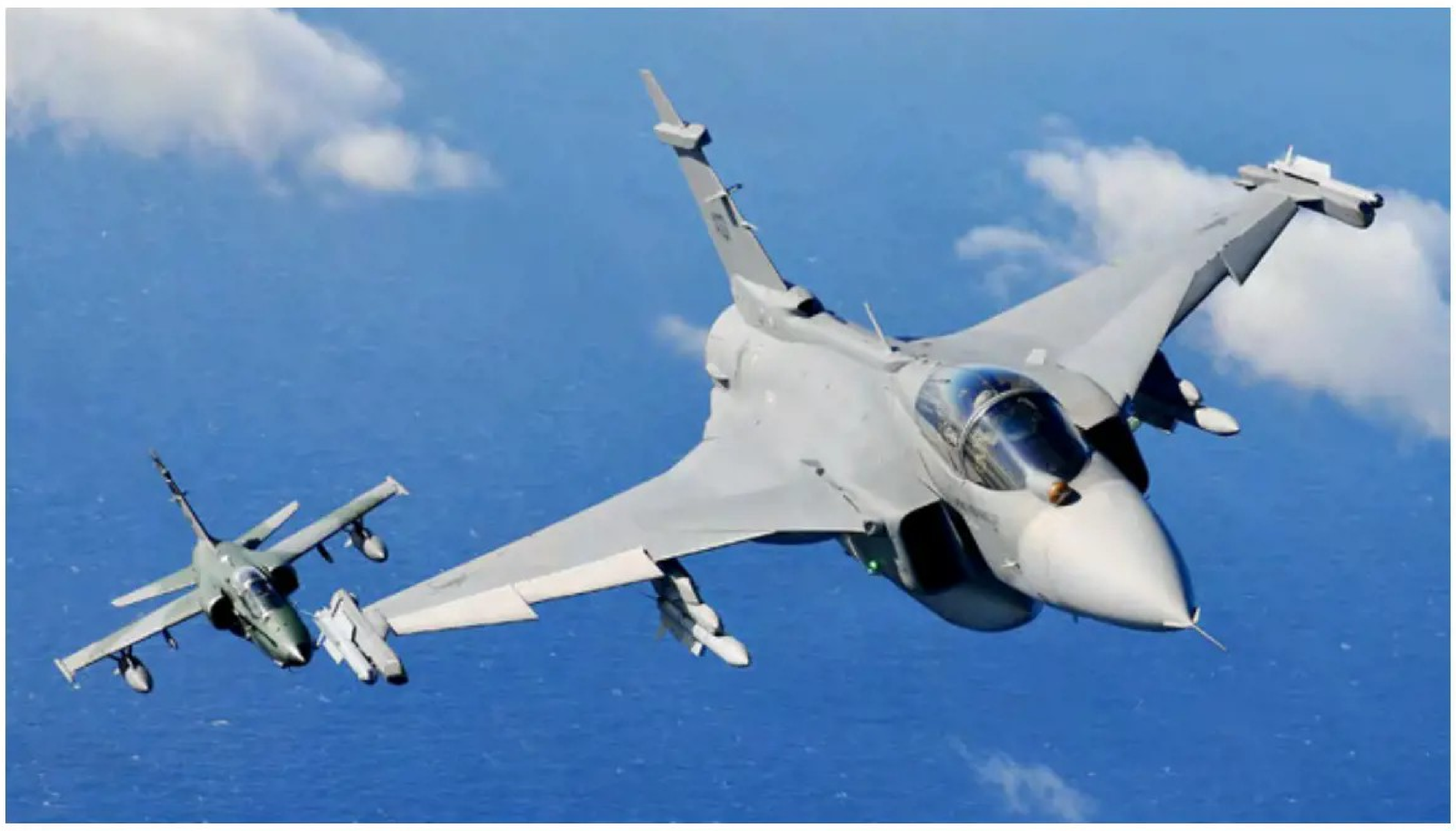


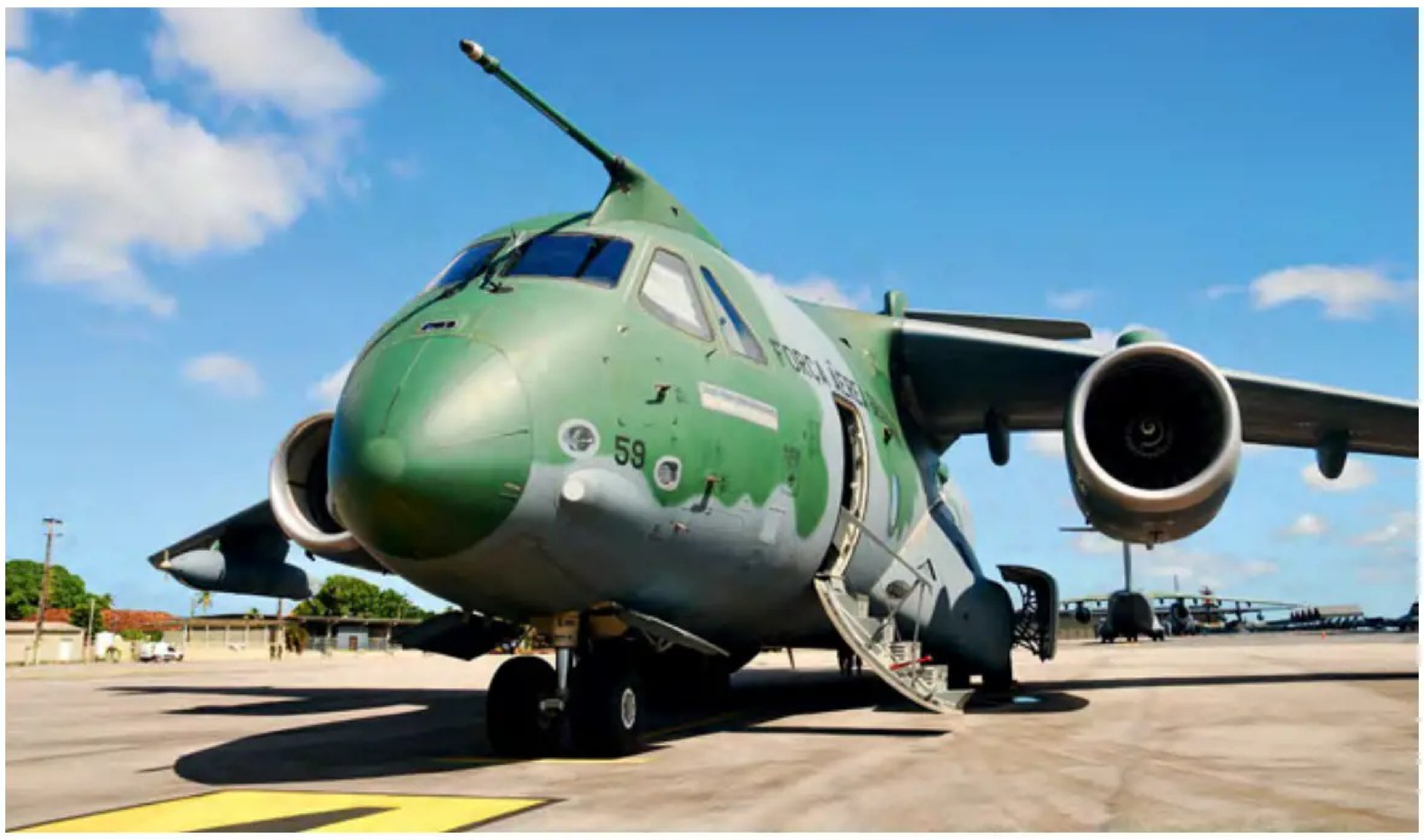
▲ An F-16C Block 50M from Grupo de Aviaciòn 3 of the Fuerza Aérea de Chile (FACh) leads an AF-1B Skyhawk (ex A-4KU) from VF-1 of the Brazilian Navy. The latter is soon to be retired in late 2025

Cruzeiro do Sul Exercise (CRUZEX) is a biannual exercise hosted at Natal Air Base in Brazil. The ninth edition of the Brazilian Air Force (FAB)-run exercise was hosted from November 3 to November 15 and is Latin America's largest multinational training exercise. This year's event saw more than 100 aircraft at the base with participation from 16 nations and some 3,000 military personnel.

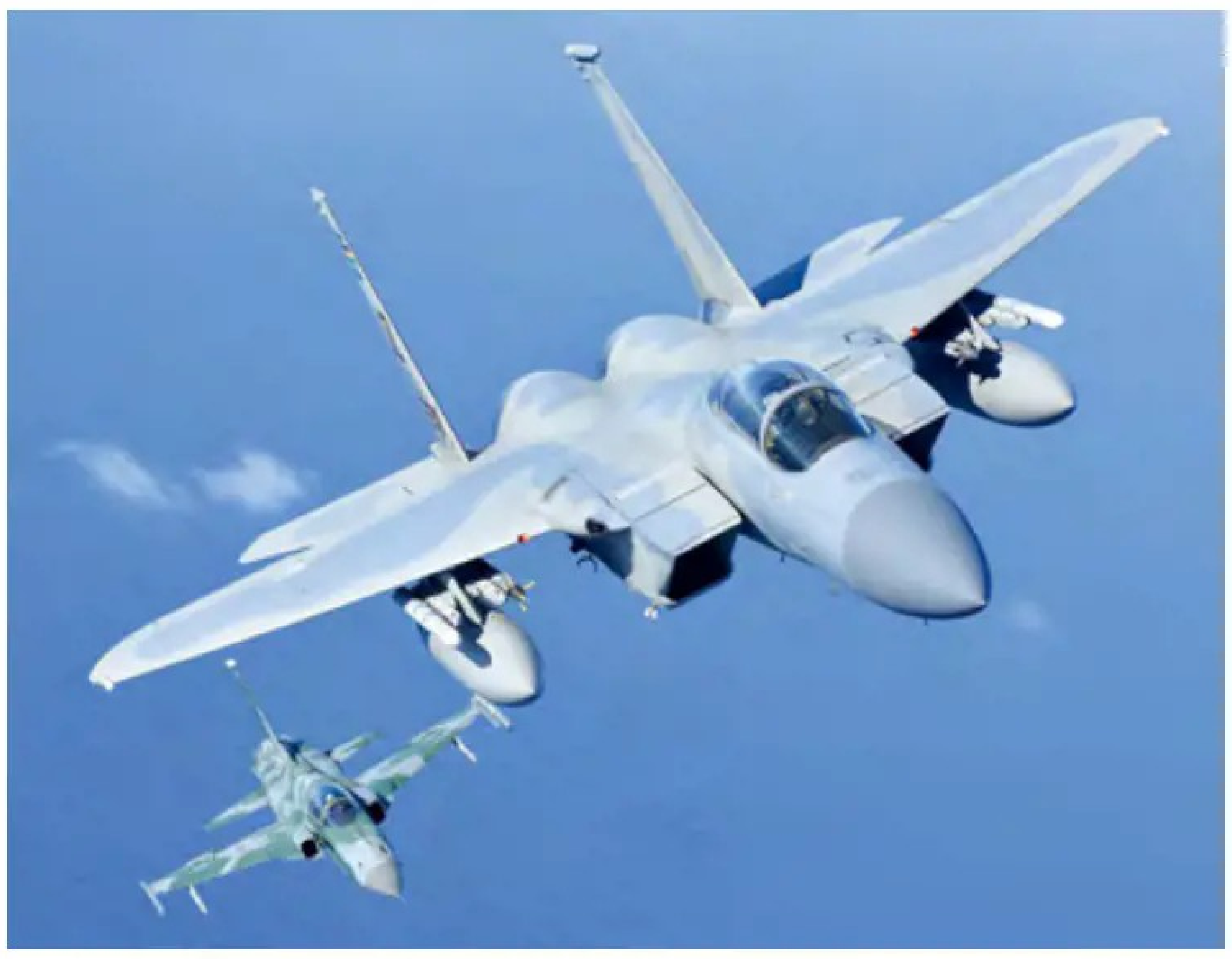
Created and tailored by the FAB Command of Preparation, CRUZEX is designed to train participating nations in multiple sectors of warfare and increase interoperability between the air forces that take part. The sectors of warfare that CRUZEX 24 focused on were Regular, Regional and Limited. The exercise was split into three phases over two weeks – first there was the familiarisation phase, allowing visiting aircrew to get used to the local training areas. Second was the Forces Integration Training, where the nations worked together to build interoperability between them, utilising the variety of platforms attending CRUZEX. Third, the Composite Air Operations phase increases in

▼ A FAB Saab F-39E Gripen and AMX A-1 in formation. Performing CAS and interdiction missions, the A-1s were at their last CRUZEX exercise, as their retirement is scheduled for next year





▲ One of the stars of CRUZEX 2024 was the KC-390 Millennium, which was operated as a transport aircraft for paratroopers as well as a tanker for fast jets. Esquadra 506 of the Portuguese Air Force sent one of its KC-390s to this year's CRUZEX

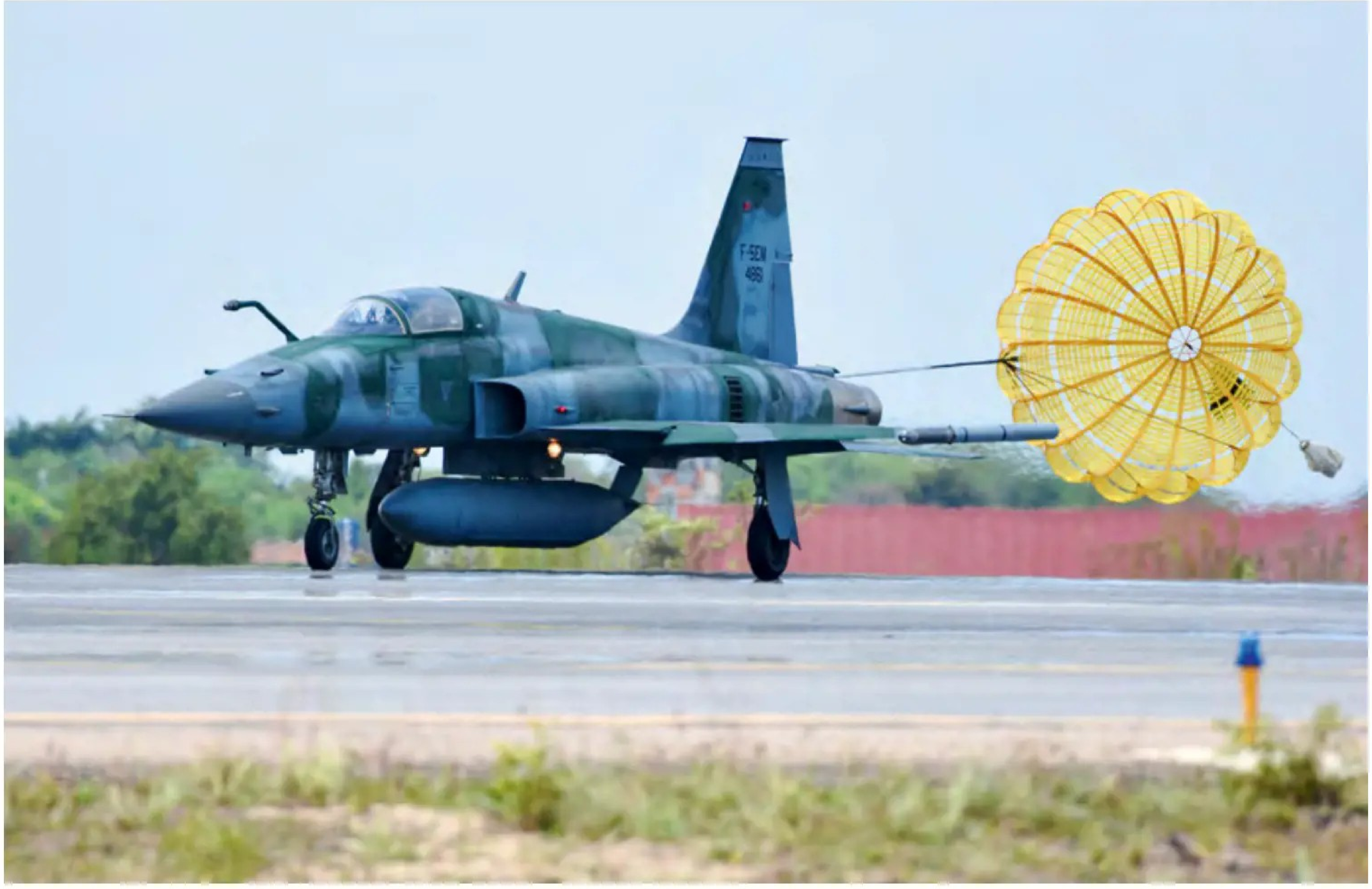


▶ One of six F-15Cs from the 59th Fighter Wing of the Louisiana Air National Guard based at the Naval Air Station Joint Reserve Base in New Orleans; they made their debut at CRUZEX leading a FAB F-5EM

intensity throughout the phase. It included pre-planned scenarios involving up to 60 aircraft, offensive and defensive counter-air being an example of the type of scenarios that took place. These missions were provided for the participants to plan, execute and evaluate. This provided an opportunity for all nations to learn from one another in every phase of the mission. The planning phase especially is where much can be learnt by watching other nations put forward their knowledge, procedures and tactics, leading to a stronger and more blended fighting force between the nations when it comes to real-life conflict.

CRUZEX 24 bought multiple firsts to the table, including the debut for Brazil's SAAB F-39E Gripen in any major large force exercise and the first time for the Brazilian and Portuguese KC-390, which provided a range of capabilities from airdrop assault to air-to-air refuelling.

As Brazil's latest advanced fighter, the range of the F-39Es technologies were tested in a diverse set of missions, acting as both adversary and friendly forces.



▶ One of the 12 F-5EMs assigned to the exercise, taken during the landing run. The FAB are looking to retire the type by 2032

▲ A mixed formation of Gripen, F-16, AMX and A-4 over the Atlantic Ocean. CRUZEX 2024 was attended by 85 aircraft from eight air arms

▲ An F-16D Fighting Falcon from the FACh during take-off, engaging full afterburner. This air force brought five aircraft to this exercise, including two twin-seaters

▲ The Fuerza Aérea Colombiana participated with a KC-767-200ER tanker from the Grupo de Transporte Aéreo 81

Additionally, this year was the first time for USAF F-15s in Brazil. Also, 2024 was the first year that cyber simulation was introduced into the scenarios during CRUZEX. Participating forces were tasked to either protect or attack virtual systems that simulated critical cyber systems supporting aerospace operations.

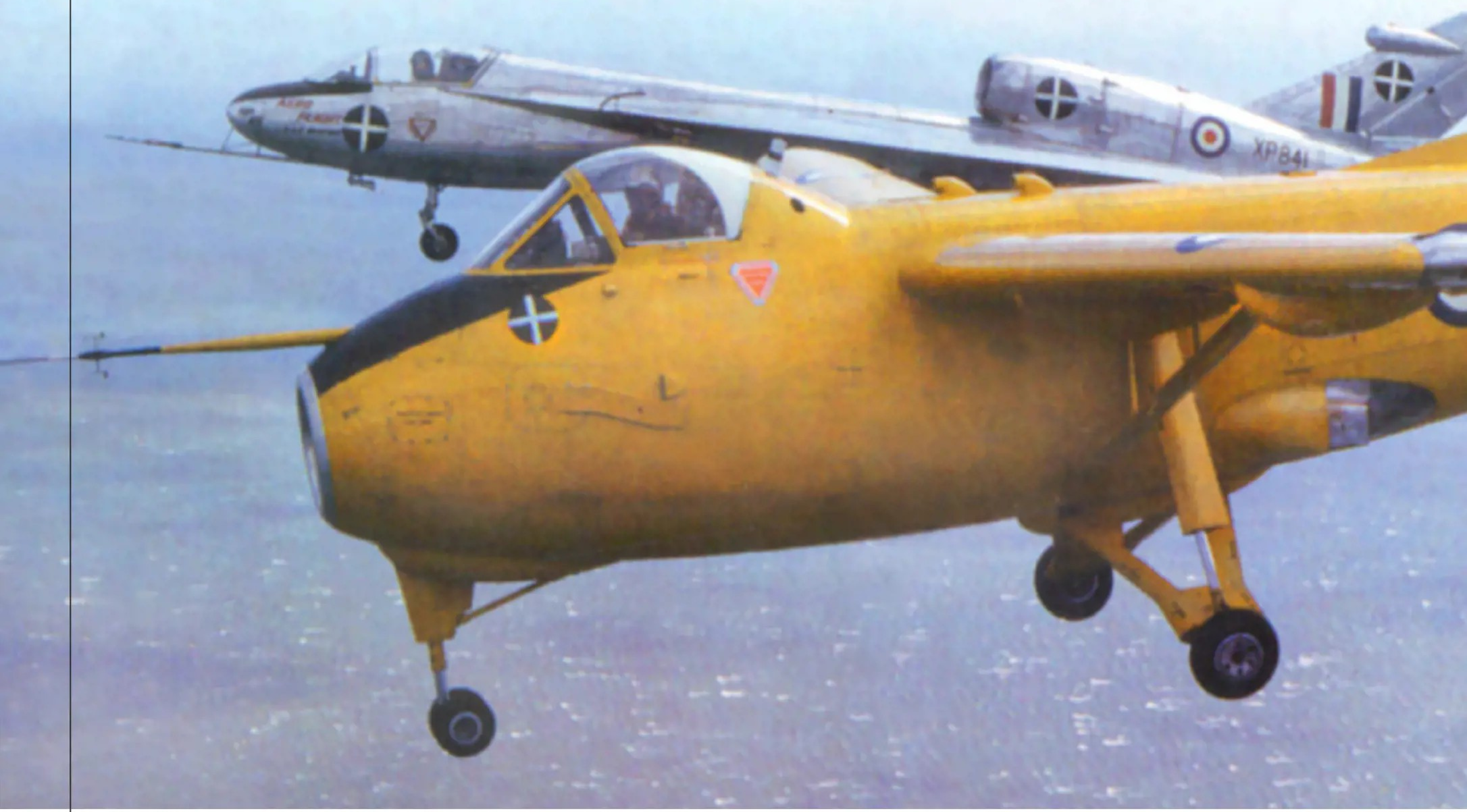
CRUZEX is a vital exercise for Latin America and others outside the region, too. It provides participating nations with an opportunity to come together in one location with a diverse variety of aerial platforms. CRUZEX focuses not only on advanced fighters, but also provides opportunities for the crews of command-and-control platforms and transport aircraft.

Those participating in the air and on the ground get a chance to increase their knowledge and capability of planning, executing and dissecting execution of large and complex mission scenarios from the other nations that take part – resulting in the growth of an allied force, which is not seen outside of exercises like CRUZEX. AN

▲ The Fuerza Aérea Argentina took part, with four IA-63 Pampa II/III light jets, from Grupo Aéreo 6 de Caza, in the light attack role, plus one KC-130H tanker and transport aircraft from the Grupo Aéreo 1

▲ One of the three AT-27 Tucano of the 3er Escuadron de Caza from the Fuerza Aérea Paraguaya (FAP) taxiing. A CASA C212-400 was also present from this service, operating in light transport missions. CRUZEX 2024 was the FAP's first participation in an international exercise

HUNTING'S HIGH-LIFT RESEARCHER



Pete London explains the career of one aircraft that during the 1960's explored the principle of jet-flap technology.

▲ XN714 en route to the Paris Air Show, June 1965, flown in its characteristic nose-down attitude by Desmond Addicott. Accompanying is Handley Page HP.115 XP841

All images Pete London collection unless stated

On March 26, 1963, a unique aircraft took to the skies from the Royal Aircraft Establishment's (RAE's) airfield at Bedford – a radical single-seat jet, it incorporated a system which used the engine's efflux to augment the lift generated by its wings. The H.126 was designed and built by Hunting Aircraft Limited of Luton and the reason it came about was to explore the principle of jet-flap technology.

Since the early 1950s, the concept of jet-flaps had been the subject of research by the National Gas Turbine Establishment (NGTE). The RAE and the aviation industry had also examined the idea. By ducting part of the engine's exhaust through a series of small jet pipes set along the rear of the fixed part of each wing, it was calculated that the lift coefficient could be boosted to several times that of an orthodox wing.

Efflux leaving the pipes would pass in a thin sheet over and then aft of the wing's ailerons and flaps, which would thus act as jet deflectors. As *Flight* magazine put it: "With the mechanical flap down, the jet stream flowing over it [would act to retard] the airflow under the wing and increase it over the wing, so increasing the lift to several times that of a conventional wing." The benefits of this arrangement would be lower take-off and landing speeds. If the concept proved successful, future aircraft fitted with such a system would require significantly shorter runways than would otherwise be the case.

To test the academic work using a full-size aircraft, on 16 June 1959 contract KD/23/01/CB10 (a) was placed with Hunting for a jet-flap research type, against the Ministry of Aviation's Experimental Requirement ER.189D. A rival Avro project, the Type 746, was

rejected. Designated the H.126, two Hunting machines (XN714 and XN719) were ordered.

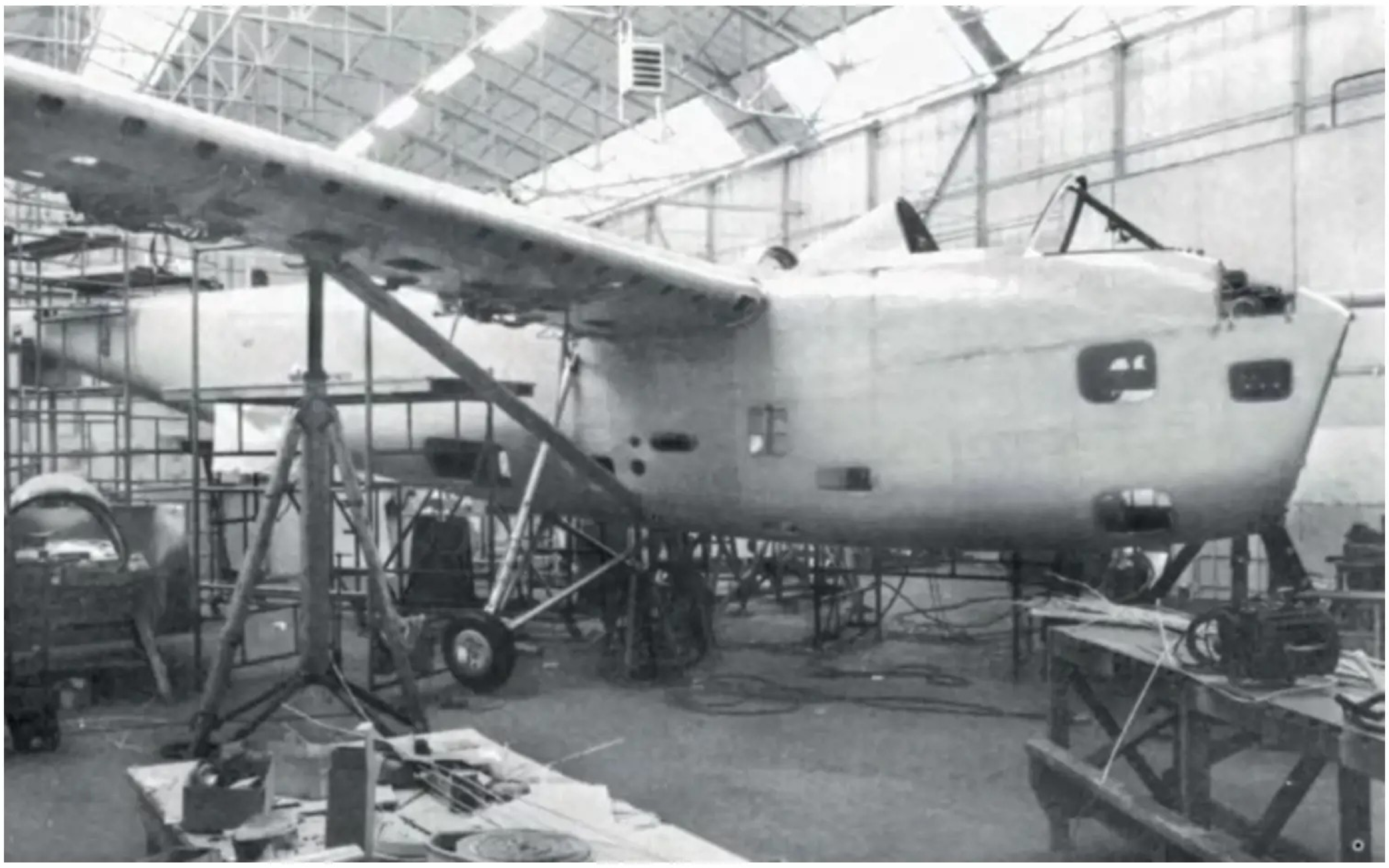
Hunting secured the order largely because of the experience of hot-gas ducting systems acquired by Hunting Percival Aircraft Ltd, its precursor company. This work had culminated in the P.74 helicopter, a single prototype of which had appeared, employing gas-powered rotor-tip jets fed by two fuselage-mounted Napier Oryx gas generator engines. The P.74 failed to fly, but despite that disappointment, Hunting had gleaned valuable experience in ducted gas techniques.

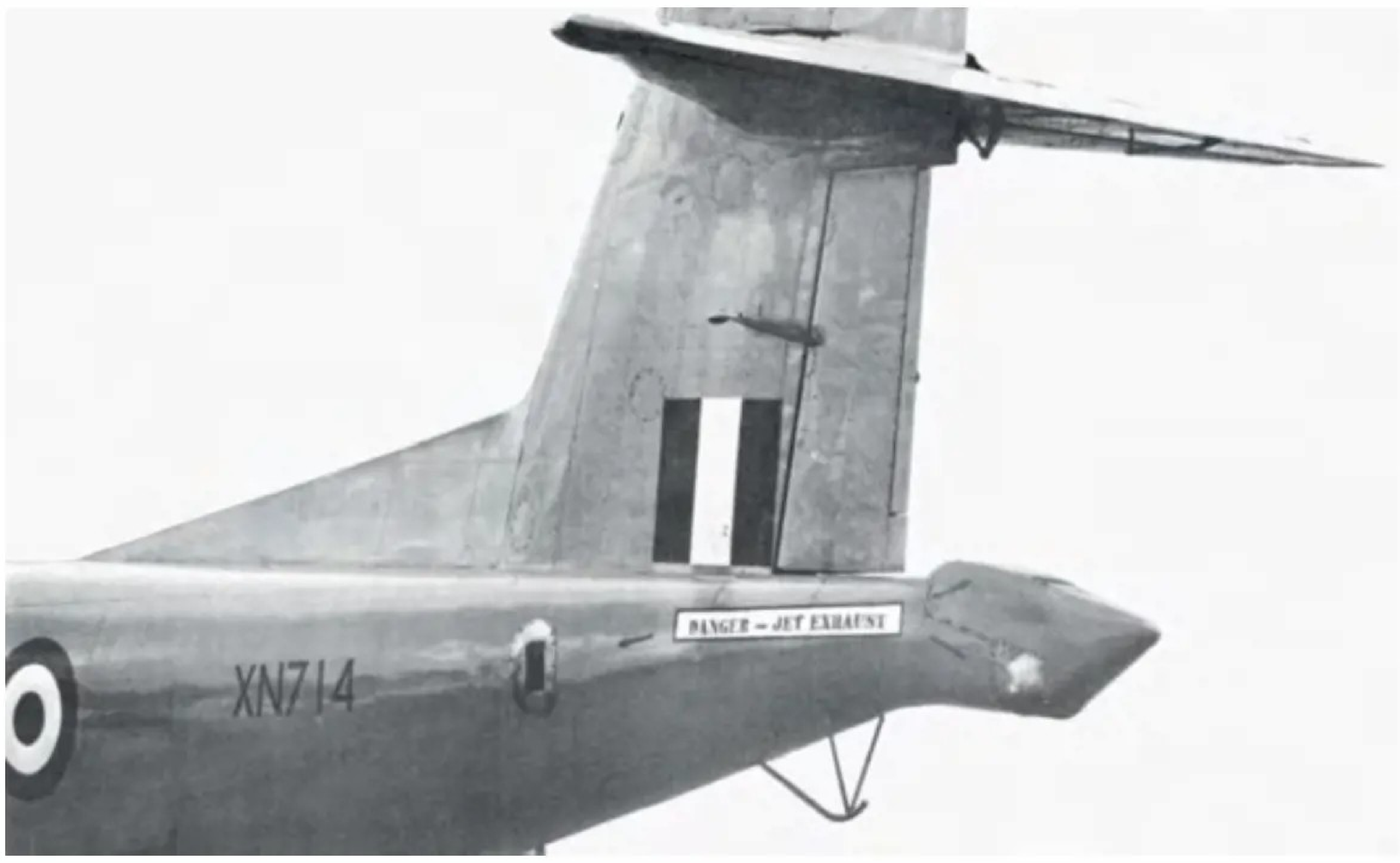
To help validate the P.126 design, the firm's P.74 hot-gas rotor test pit was adapted to serve as a rig for the new type. Over summer 1959, Frederick Pollicutt, Hunting's chief designer and technical director, began work on the aircraft. His machine employed a Bristol Siddeley Orpheus 805, de-rated to 4,300lbs to keep the exhaust duct metal temperature below 620°C. The engine received air via a circular nose intake, and was positioned beneath the cockpit to help facilitate exhaust gas flow within the airframe. The entire efflux was ducted through a right-angled cascade to an intricate specially built distribution manifold just aft of the cockpit, which became known as 'the dustbin'.

From the top of the manifold, some 60% of the efflux was channelled into three ducts within each wing. The ducts fed eight fixed fishtail-shaped exhausts, set just ahead of the control surfaces, and single roll-control exhausts at the wing tips. The fishtails discharged the efflux sheet over the top of the narrow-chord flaps and ailerons no matter what their attitude, and the system produced thrust whether or not the surfaces were operated.

To protect the surrounding light alloy airframe from the hot ducts, each was lagged, and covered by heat-reflective steel shields. The ducts were placed within tunnels lined with further steel heat shields. Cooling air was passed into the tunnels via slots in the wing leading edges. Only the top surfaces of the flaps and ailerons were exposed to the efflux gases, while their

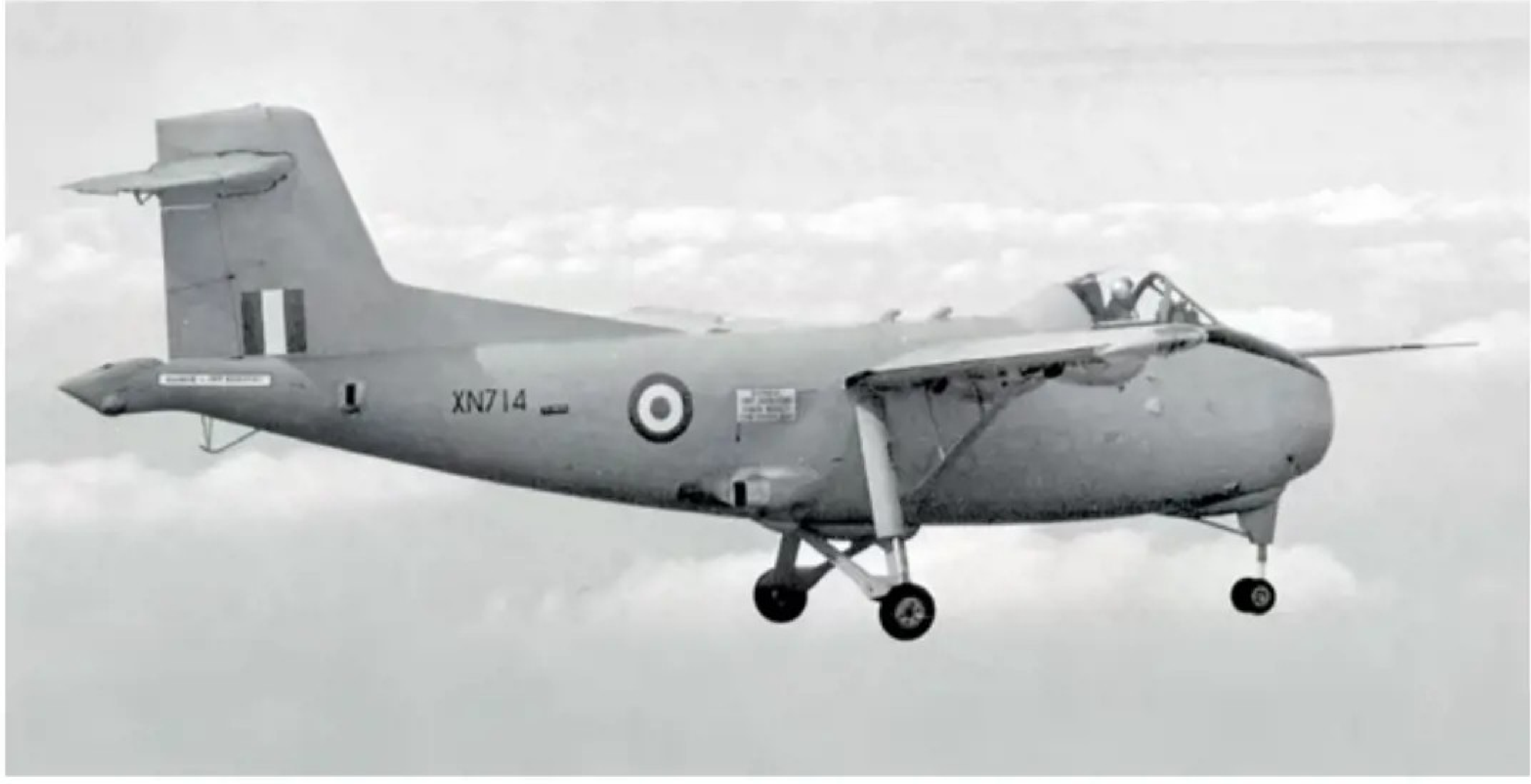
▶ The sole Hunting H.126, XN714, under construction at the company's Luton premises





▲ A close-up of the H.126 tail assembly under construction, showing the thick moveable tailplane

▼Air to air, XN714 reveals its deep fuselage, prominent pitot tube and stalky fixed undercarriage.



bottom surfaces remained relatively cool; they were constructed to allow for differential expansion, and to maintain the correct profile.

From the bottom of the manifold, ducts emerged through rectangular exhausts on each side of the fuselage, giving additional thrust. Provision was made for these exhausts to include thrust spoilers, controllable by the pilot. A further duct running aft supplied two yaw control exhausts located beneath the fin, as well as pitch control and pitch-trim control exhausts set at the tail cone.

To accommodate the ducting, the high aspect-ratio, shoulder-set wing employed a thick NACA 4424 section aerofoil. Constructed in two sections and of two-spar arrangement, the wings were attached to the fuselage using pin joints and supported at around two-thirds span by single struts. The wing and strut attachments were designed such that dihedrals of either four or eight degrees could be utilised, although in practice only the four-degree option was used. Ailerons and flaps each employed operating jacks situated beneath the wing, all in prominent fairings.

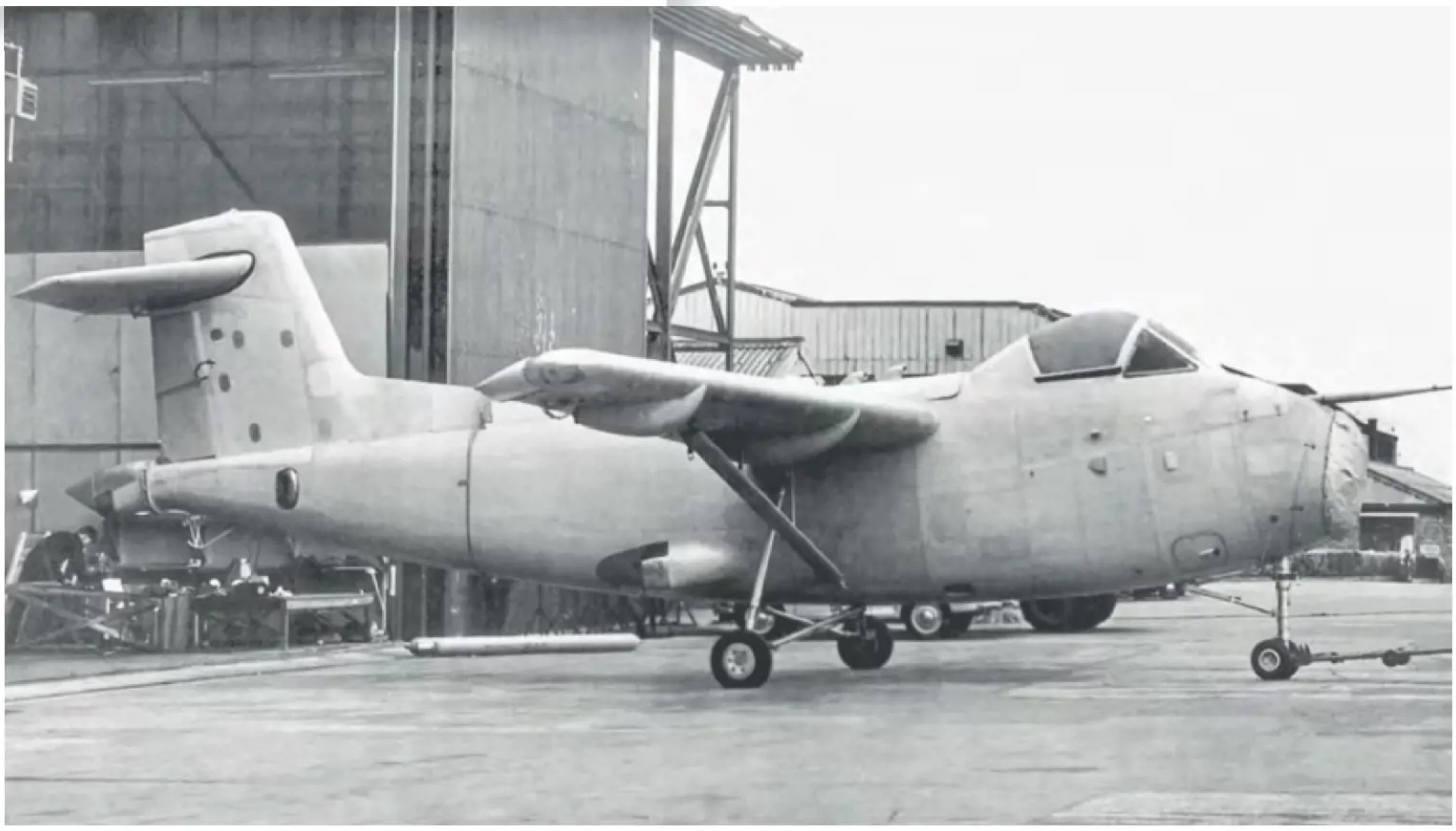
Design detail

The deep fuselage was of oval cross-section, its light alloy construction covered with a stressed skin. At the nose was positioned a prominent pitot tube. The high-set cockpit with one-piece sliding canopy was unpressurised, the aircraft not intended to operate at great heights, but an oxygen system and a Martin-Baker Mk.4 ejection seat were installed. While the wingtip roll control exhausts were managed by an auto stabiliser, those directing pitch and yaw at the tail were operated in conjunction with the pilot's control column and rudder pedals. Within the rear fuselage were test instruments and automatic recorders.

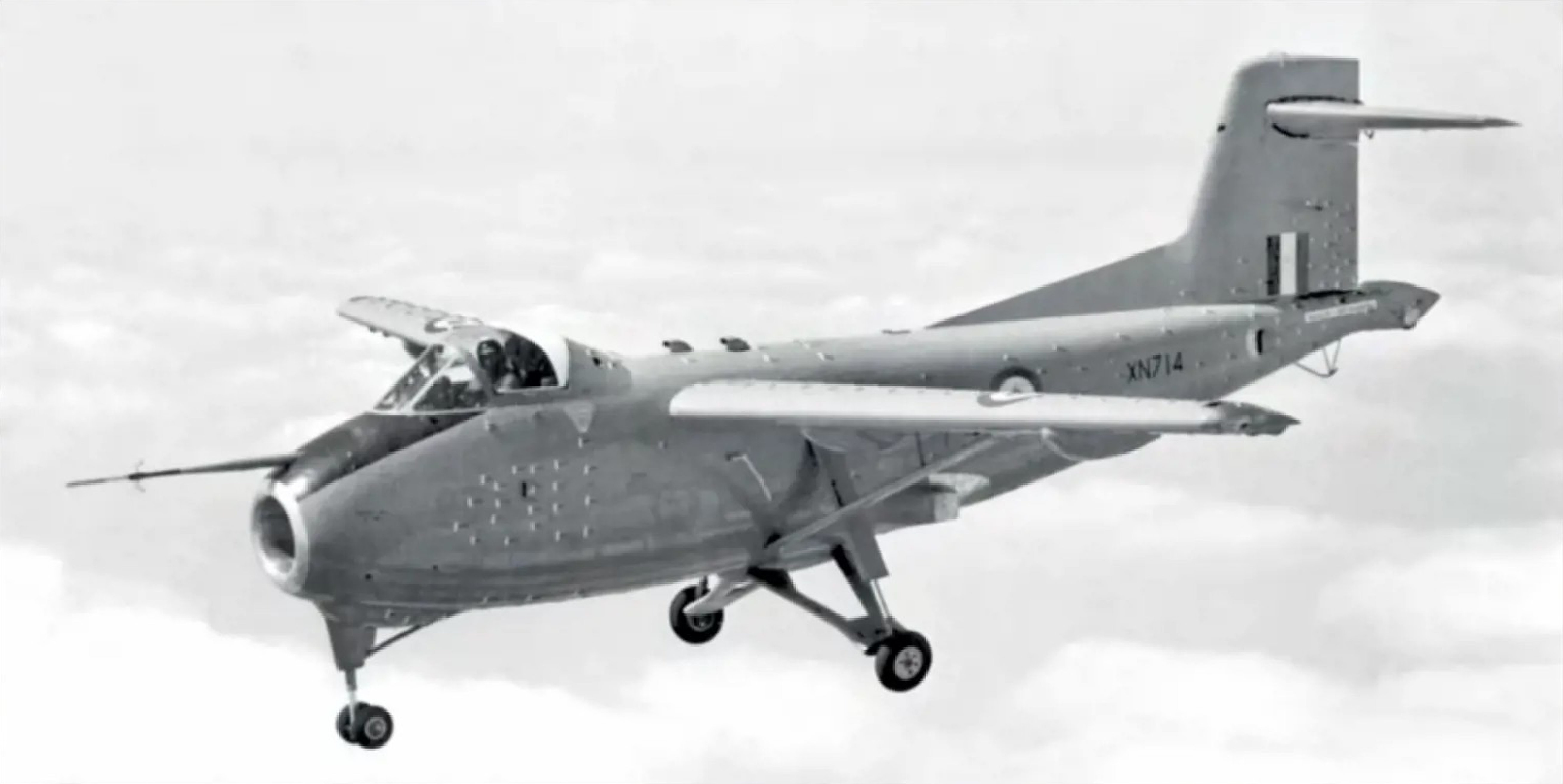
The fixed undercarriage main units were single-wheeled, their legs joining the fuselage just below the wing, and braced by two struts running to the bottom of the fuselage. The steerable nose unit employed twin wheels, attached to a vertical shock absorber and secured to the fuselage by drag struts.

To avoid the efflux from the wings, the thick-section two-spar tailplane was mounted high on the fin. The tailplane pivoted at its rear spar to allow variable incidence, and was power-operated, the elevator being manually operated. These surfaces worked in conjunction with the pitch exhausts at the tail cone.

The fin employed three main and two subsidiary spars, and at its tip was an anti-spin parachute; the rudder featured a trim and anti-balance tab. Hydraulic



▶August 1962: the H.126 is rolled out at Luton. It has yet to receive its vivid yellow scheme. The air intake and cockpit canopy are masked for spraying



▶XN714 with woollen tufts attached, allowing a filming aircraft to record indicated airflow characteristics around its wings, fin and fuselage

power for operation of the tailplane, ailerons, flaps and wheel brakes was provided by two independent pumps. Because the efflux passed through much of the airframe, a comprehensive fire-detection system was installed, while temperature recording instrumentation was fitted at numerous points.

Roll out

By the summer of 1962, the first H.126, XN714 (c/n H.1-1) was complete. Rolled out unpainted at Luton during August, taxi trials began in November conducted by Hunting's chief test-pilot, Stanley Blackbourne 'Olly' Oliver, mostly with the flaps set at 10°. By then though, the partly completed second aircraft had been cancelled.

Luton's skies were too congested for test-flying, particularly of such an unusual type. In December 1962, XN714 was transported some 30 miles to RAE Bedford, for continuing ground assessment and then flight trials. But the severe winter of 1962/1963, which saw heavy snow, then intervened. RAE took the opportunity to run slush tests on its runways, so they remained uncleared. By January 1963 XN714 had been reassembled, but its first flight was delayed until pending better weather.

Finally airborne

Painted yellow, the machine finally became airborne on March 26, lifting off at just over 90mph with Oliver at the controls. Accompanied by two Meteor chase planes from Bedford's Aero Flight, it flew for around 18 minutes and reached 3,000ft. In level flight XN714 assumed a noticeably nose-down attitude. On returning, Oliver reported: "Taking this plane off is an entirely new sensation; it just floats off the ground, and then you go up like a lift." He also said his experience had been a "perfect, no-snags flight".

In fact the aircraft suffered from slight longitudinal instability and lateral drift, though not enough to trouble its pilot. But further exploration of its envelope revealed an uncomfortable trait: with power on and flaps down, the stall was sudden and fierce, although recovery was rapid. With power off, the stall was gentle with adequate warning. XN714 was also found susceptible to crosswinds during landing, and, to an extent, while taking off.

During July 1963, the aircraft was flown for the first time by RAE pilot Flt Lt Ian Keppie. He identified a degree of Dutch roll, but not to an irksome extent. By September 1964 XN714 had made 80 flights, of

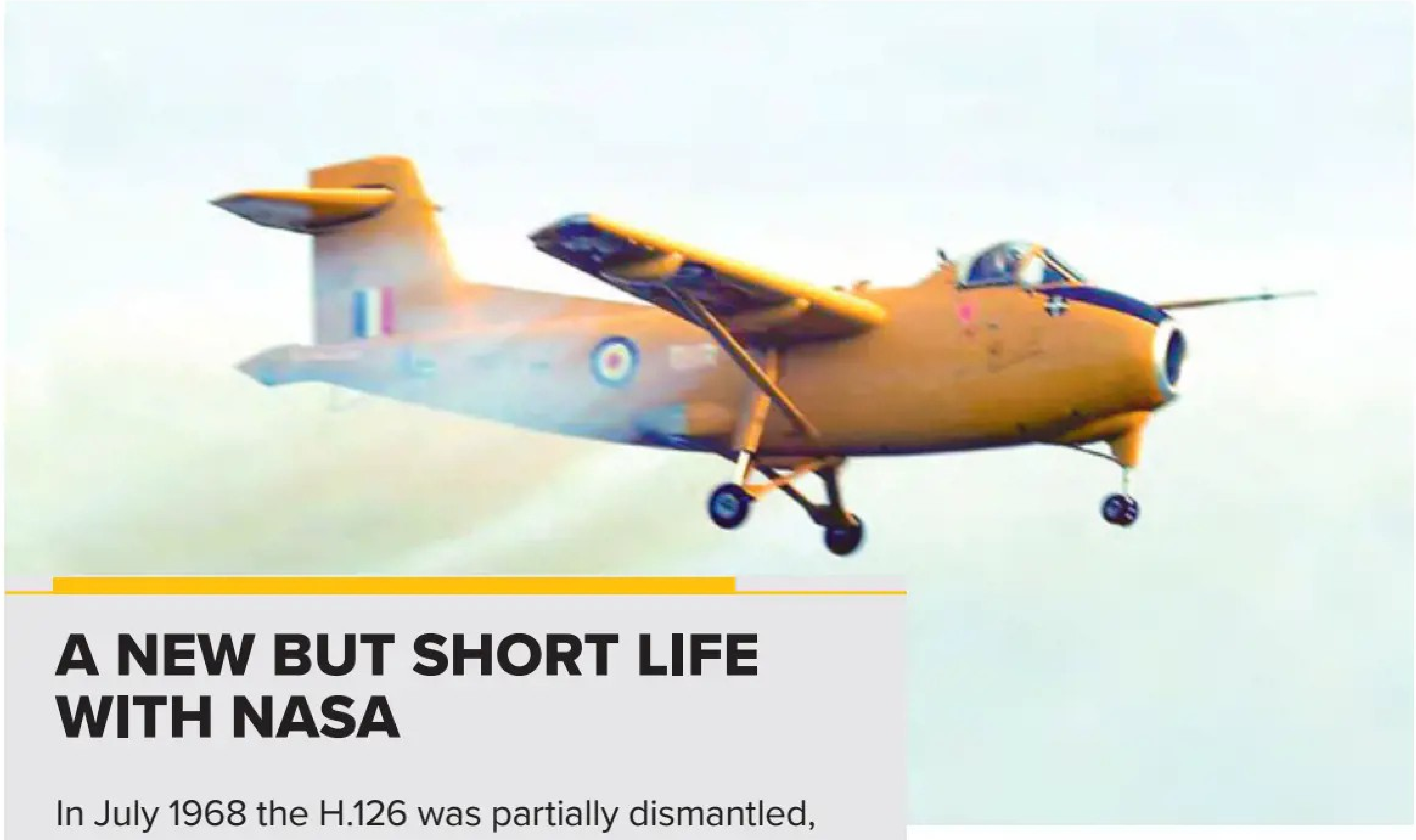
▼In the winter snow of 1962-63, a tractor prepares to move the H.126 while assorted technicians cluster round
(image via Eric Morgan)

which RAE pilots had performed 18, its accrued flying time 40 hours 28 minutes. The following month it left Luton, acquired by the British Aircraft Corporation (BAC), which had absorbed Hunting Aircraft Ltd. XN714 travelled to Aeroplane and Armament Experimental Establishment (A&AEE) at Boscombe Down, for static testing and canopy jettison trials.

In June 1965 the H.126 visited the Paris Air Show, in company with Handley Page's HP.115, XP841. Both types' short ranges necessitated stops along the way. At Paris, XN714 was demonstrated by Desmond 'Dizzy'Addicott, who at that time was on secondment at Hunting from Vickers-Armstrong. Apart from a burst port tyre, all went well.

Keppie later became the H.126 project pilot for RAE's Aero Flight, while his colleague John Farley also flew XN714. In September 1965 the aircraft visited RAF Cranwell, returning to Bedford in February 1966 to continue trials. These confirmed astonishingly large values of lift coefficients, more than six (some reports cite a maximum of nine), at a time when the typical value was around 1.5. XN714 could also travel very slowly. Wg Cdr Clive Rustin, then with RAE, tested the machine, reporting that the H.126 flew comfortably at well below 70 mph. With a maximum speed of 288 mph, its stall speed was reportedly just 32 mph.

In September 1966, testing was punctuated by a visit to RAF Gaydon for the Battle of Britain Day display. XN714 made its final flight on November 9, 1967, having racked up a total of 141.49 flying hours. The jet flap principle, and the new method of managing pitch, roll and yaw, had proved sound. However, the thick wing necessary to house the H.126's ducting had always been unsuitable for use by many types of aircraft; slimmer, less intrusive ducting had never emerged. In the meantime, too, other, simpler forms of high-lift device were becoming ever more sophisticated. But that wasn't the end of XN714's story. AN



▲ XN714 displays the prominent efflux sheet emerging from its aft wings

A NEW BUT SHORT LIFE WITH NASA

In July 1968 the H.126 was partially dismantled, then transported to Hawker Siddeley Aviation at Holme-on-Spalding-Moor, Yorkshire. There it was reassembled, checked and again dismantled, ready for shipment to the United States, for wind tunnel tests with the National Aeronautics and Space Administration (NASA).

In April 1969 XN714 was flown by RAF Short Belfast XR366 to NASA's Ames Research Center at Naval Air Station Moffett Field, California. A 12-month evaluation followed; it's thought the aircraft wasn't flown, and details of the work undertaken seem not to have been released. XN714 arrived back at Holme in May 1970.

Further flight-testing was considered but never carried out. Instead, the aircraft was moved to Bedford. There, crated, it stayed for the next three-and-a-half years, with the possibility that further STOL projects might find it useful. That turned out not to be the case and finally, in June 1972 the H.126 was struck off. Fortunately, XN714 was preserved, joining the RAF Museum at Cosford in April 1974.

◀ XN714 is currently on display at the RAF Museum, Cosford
(image by kind permission of Igor Kolokolov).

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Flying the charismatic Curtiss-Wright Travel Air
ENEMY GLOSTER
How did Gladiators come to fly in Luftwaffe hands?

DUTCH F-16 FAREWELL GOODBYE TO A LEGEND
AIRFORCES MONTHLY
OFFICIALLY THE WORLD'S NUMBER ONE AUTHORITY ON MILITARY AVIATION
Taking on Iran's missile menace
US THAAD defence system rushed to Israel
Keeping the peace?
Assessing the UN in Lebanon
NATO's new combat exercise
Ramstein Flag in Greece
Dambusters in Iceland
UK F-35Bs on patrol

FEARED FIGHTERS IN FOCUS
In the January 2025 issue of FlyPast, we profile two of the most feared fighters in the Luftwaffe's World War Two arsenal. While our popular 'Classics' section focuses on the revered Messerschmitt Bf 109, our cover star is a Flug Werk-built recreation of the no less legendary Focke-Wulf Fw 190. Discover the story behind this remarkable flyer as we go air-to-air with an instantly recognisable warbird.

BARNSTORMER
Dave Unwin flies in a Curtiss-Wright Travel Air 12, prompting our resident pilot to relive his barnstorming fantasies of yore!

RUDOLF HESS
Did the Deputy Führer fly to Scotland on a whim or was his journey meticulously planned? A new study explores that fabled flight in detail

MESSERSCHMITT Bf 109
We examine the deadly Battle of Britain fighter and profile some of the type's early exponents

TAKING ON IRAN'S MISSILE MENACE
US THAAD defence system rushed to Israel

KEEPING THE PEACE?
Assessing the UN in Lebanon

NATO'S NEW COMBAT EXERCISE
Ramstein Flag in Greece

DAMBUSTERS IN ICELAND
UK F-35Bs on patrol

DUTCH F-16 FAREWELL
Goodbye to a legend

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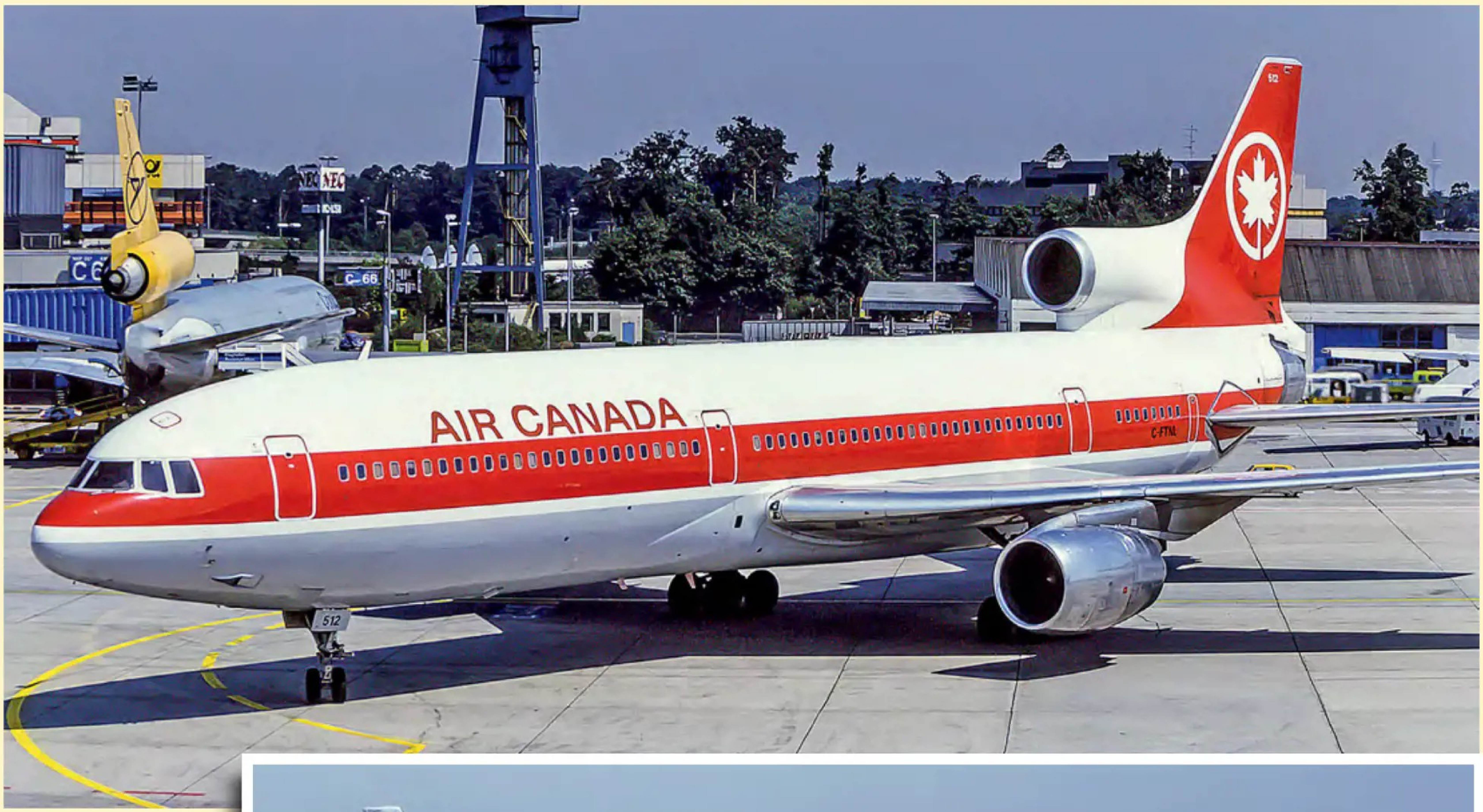
PHOTOGRAPHY

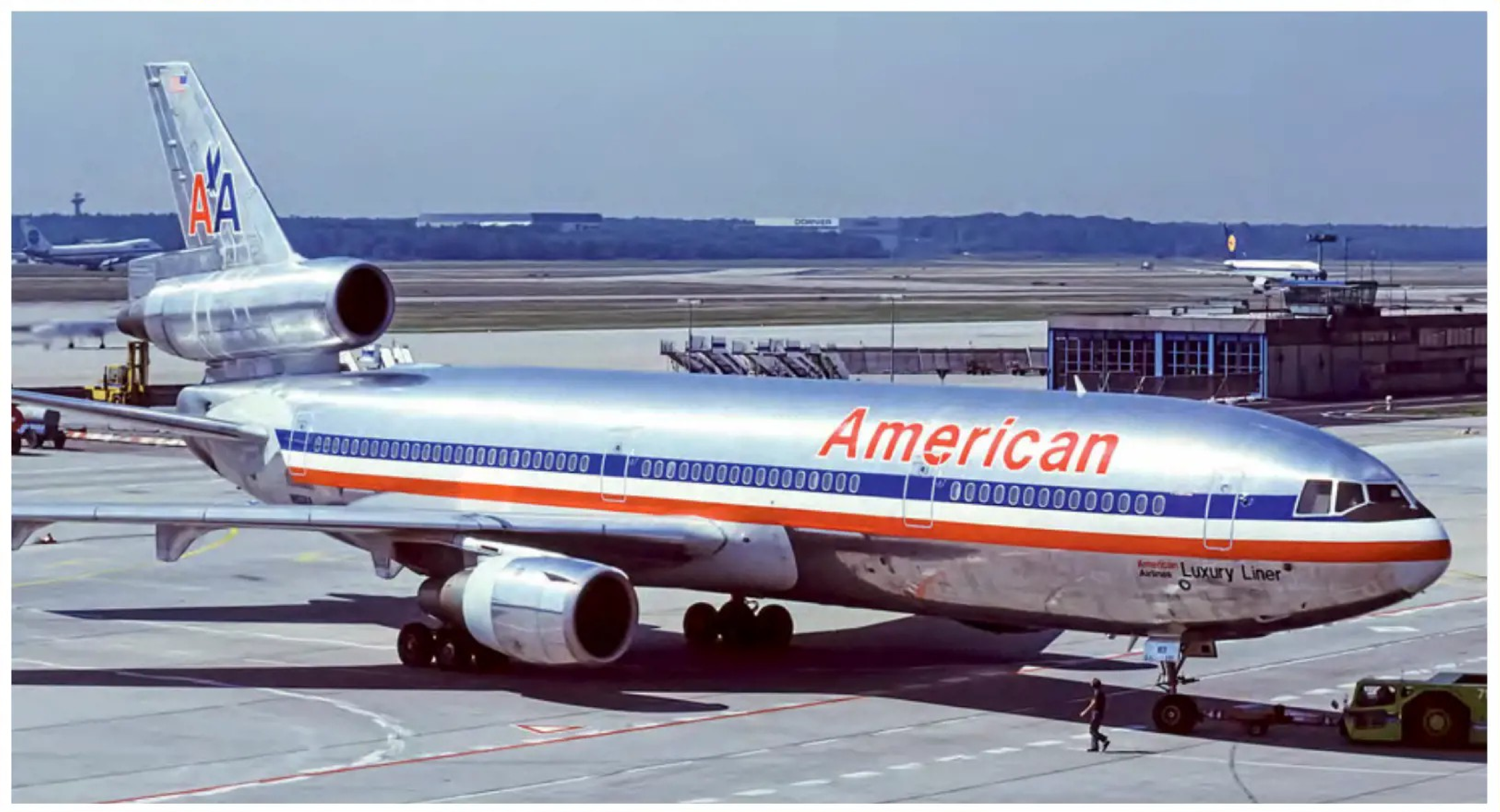
B-52H Stratofortress 61-0014 ‘Death Dealer’ from the 49th Test and Evaluation Squadron, begins to taxi out before returning home to Barksdale AFB after a short visit for the 53rd Wing Change of Command Ceremony held at Eglin AFB in late July 2024 Photo Jacob Warye/Warye_33 Photography

FRANKFURT WIDEBODY CLASSICS 1983-1985

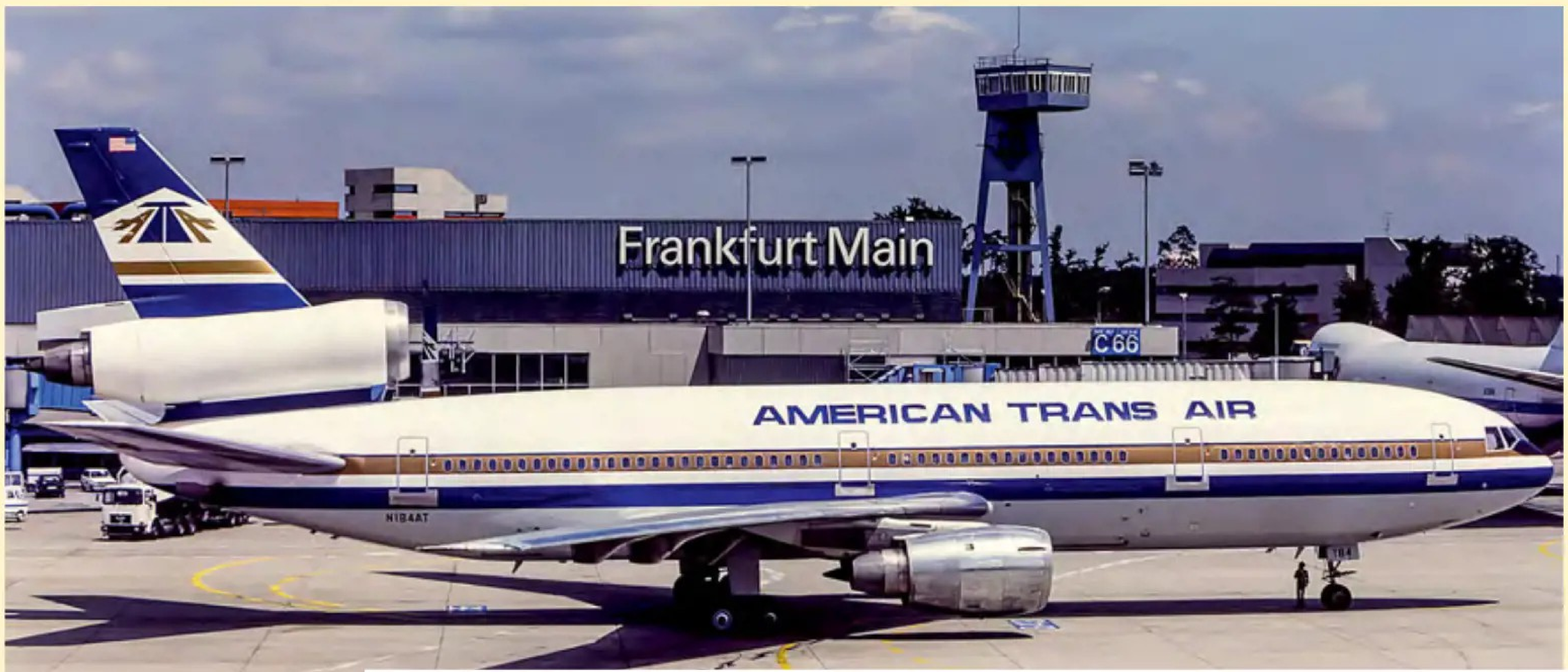
The observation deck on top of the terminal at Frankfurt Airport (FRA) was legendary in the 1980s and a fantastic photo location – at that time there were no glazing or high fences. **Dirk Grothe** spent three weeks each summer holiday from 1983 to 1985 on this observation deck and shows the best widebody photos here – those were the days!



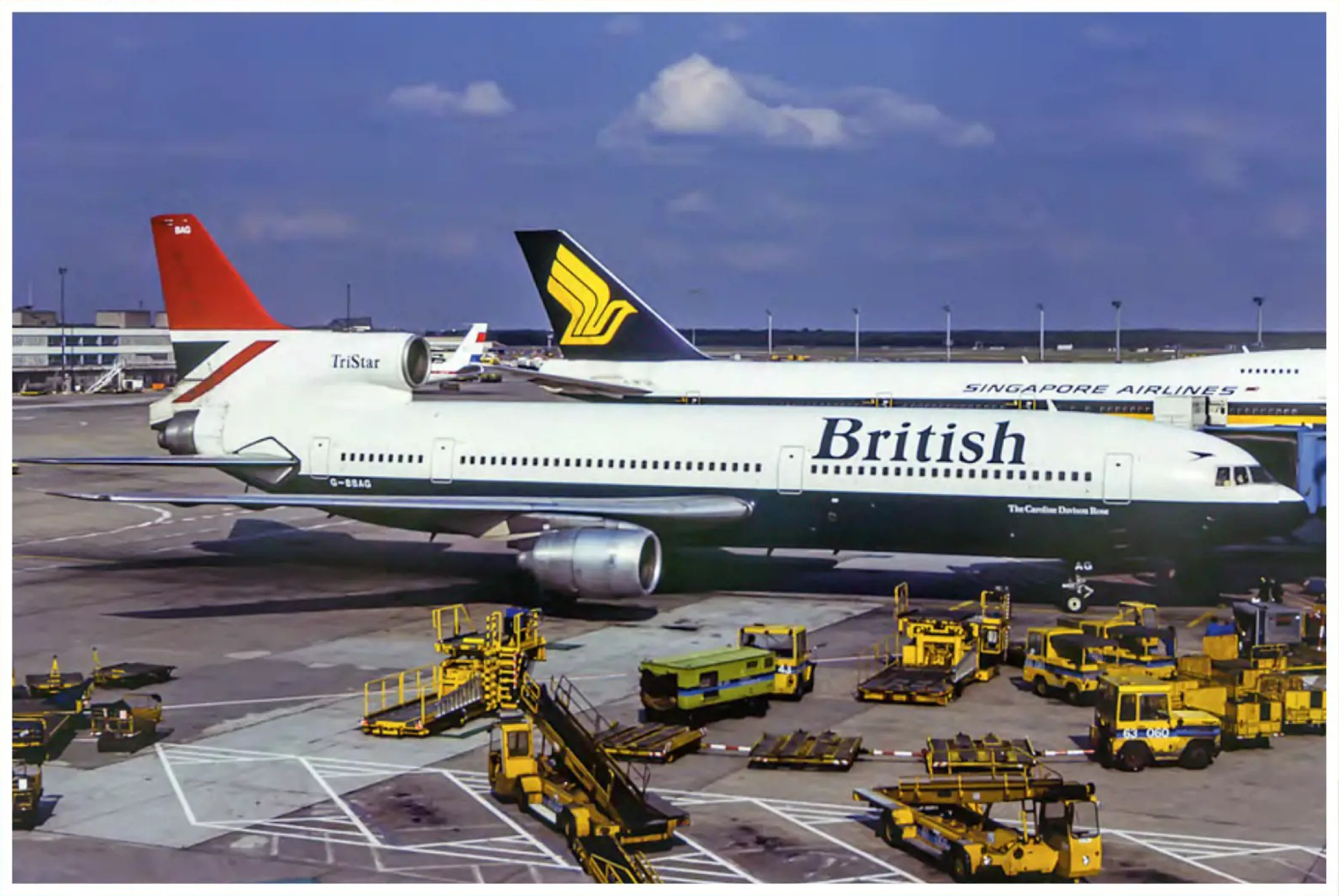
Delivered in 1974, this Air Canada Tristar 100 C-FTNL (193E-1073) is seen on its way to the gate on July 18, 1985



American Airlines was the last operator of this DC-10-30 N163AA (46914/195) seen on July 18, 1985. It was delivered to KLM in 1975, later Philippine Airlines and Thai Airways, and was broken up at MZJ in 2005

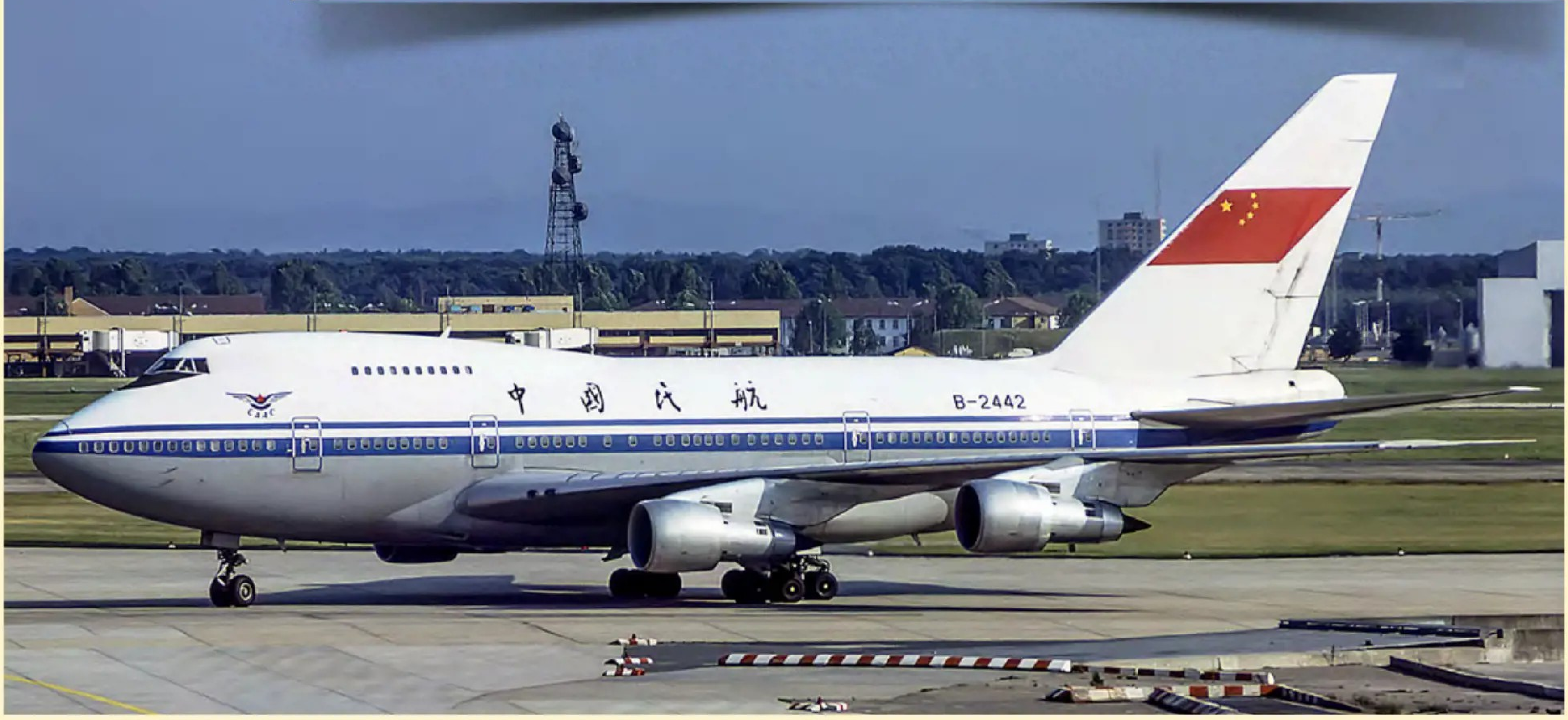

Frankfurt Main
C66
AMERICAN TRANS AIR
N184AT

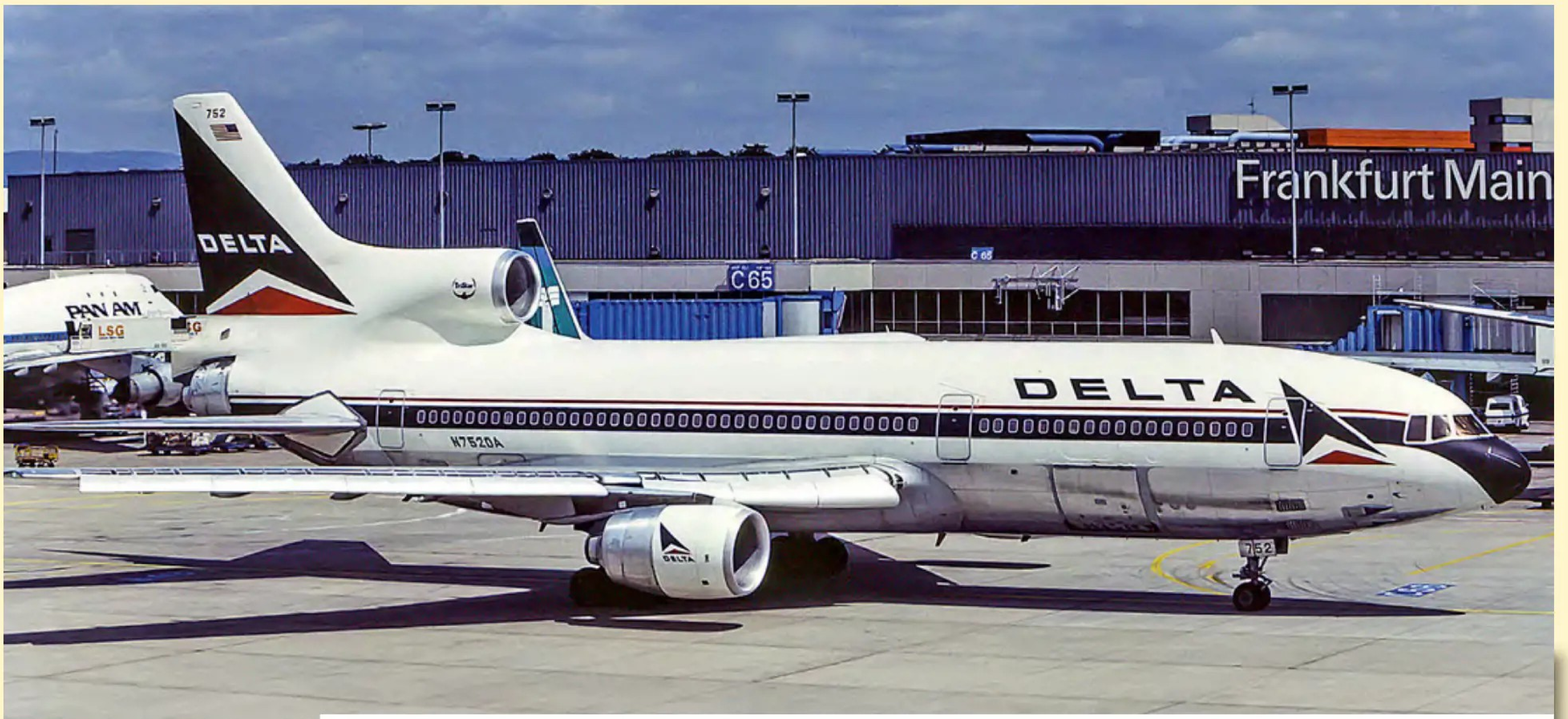
The American Trans Air DC-10-40 N184AT (46751/36) seen here after push back from the gate on June 23, 1984 was destroyed by a ground fire at ORD two years later on August 10, 1986


TriStar
British
SINGAPORE AIRLINES
G-BBAG

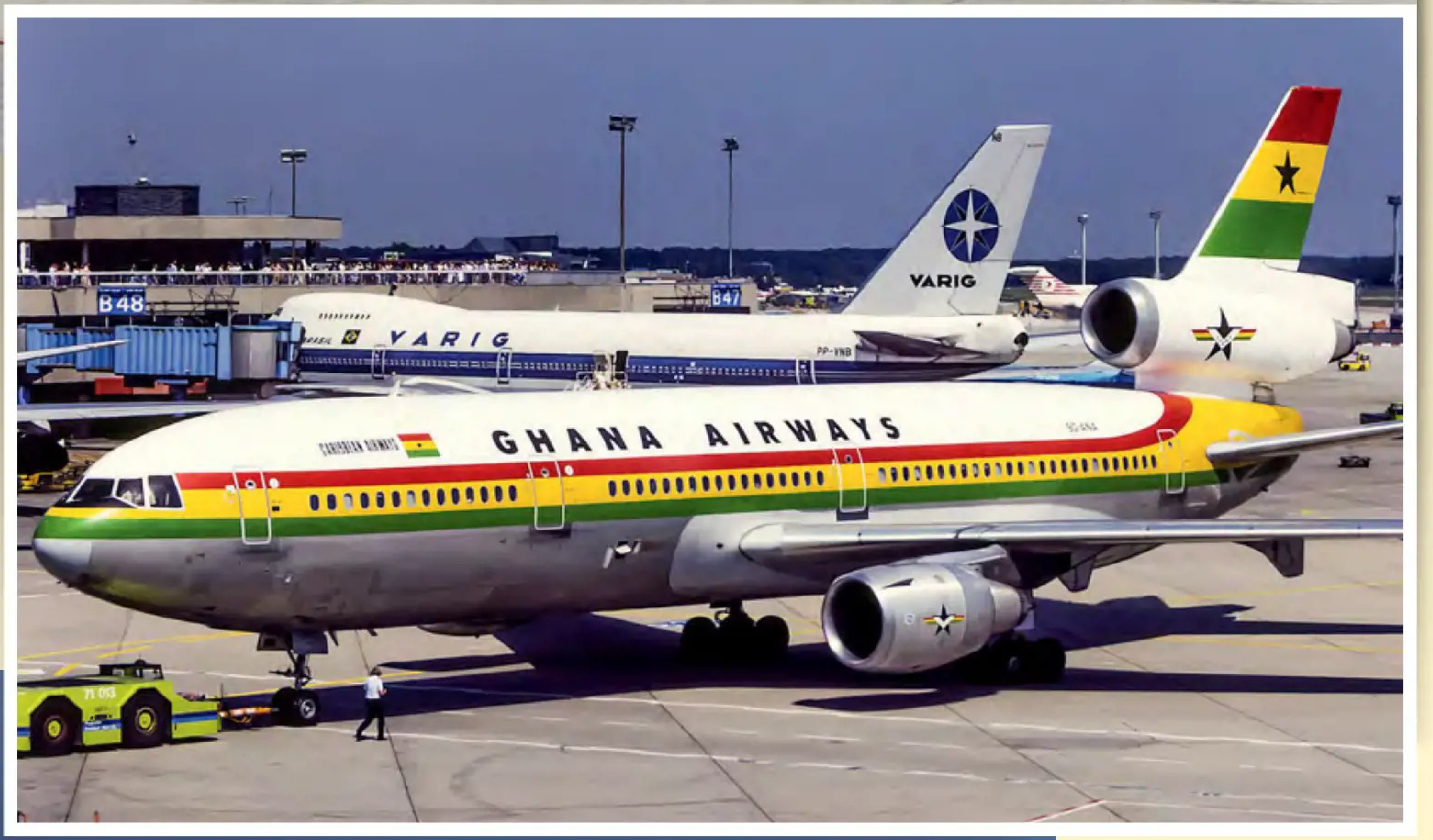
The British Airways Tristar 1 G-BBAG (193N-1094) entered service in 1975 and was broken up 2002, seen here on June 29, 1984

The Boeing 747SP-J6 B-2442 (21932/433) was one of four 747SP in service with CAAC and later Air China from 1980 until 1999

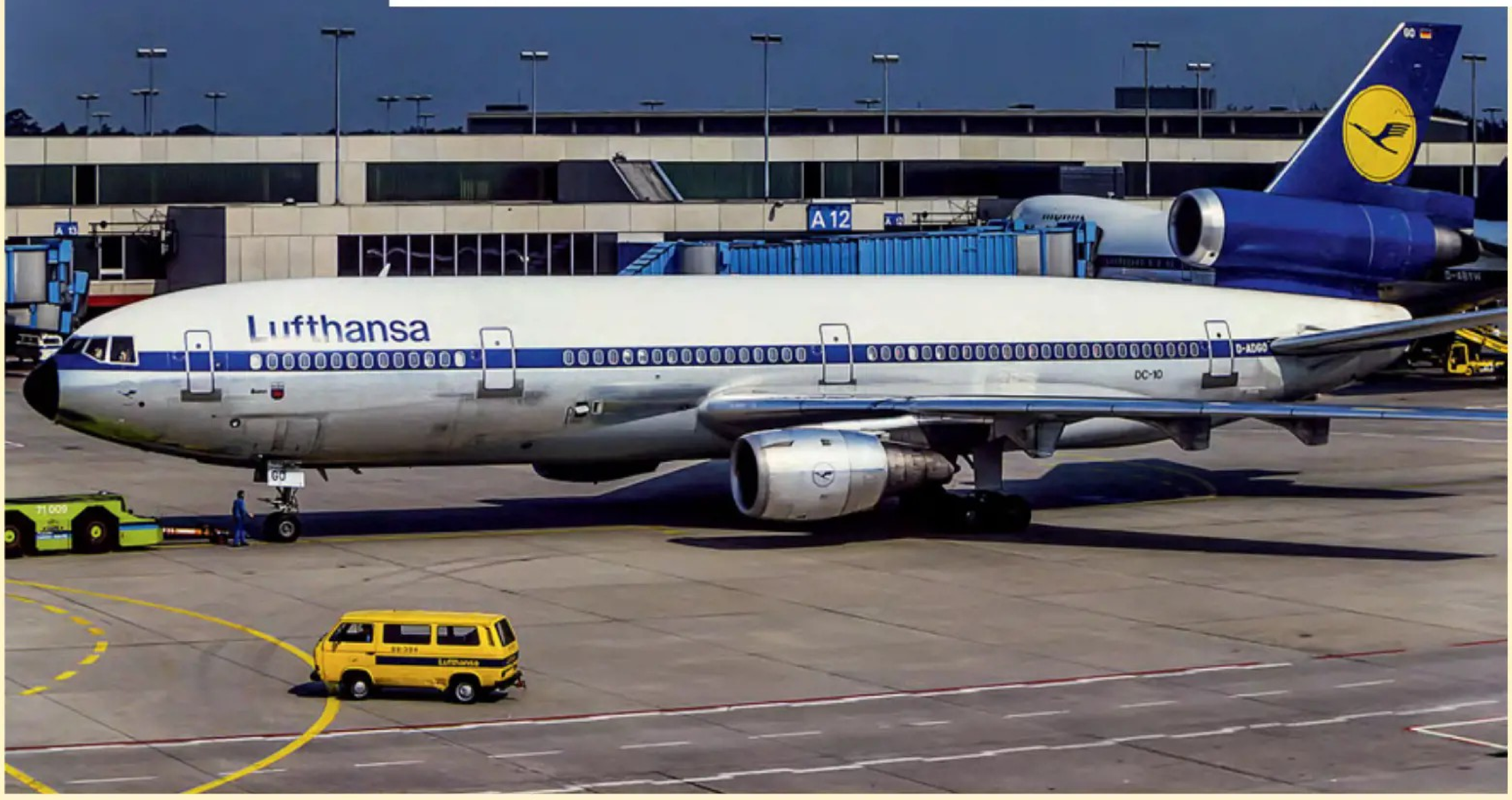

中国民航
B-2442
CAAC


Frankfurt Main
DELTA
N752DA
PAN AM
C65

Delta Air Lines was the only operator for this Tristar 500 N752DA (193W-1172) from 1979 until 1998

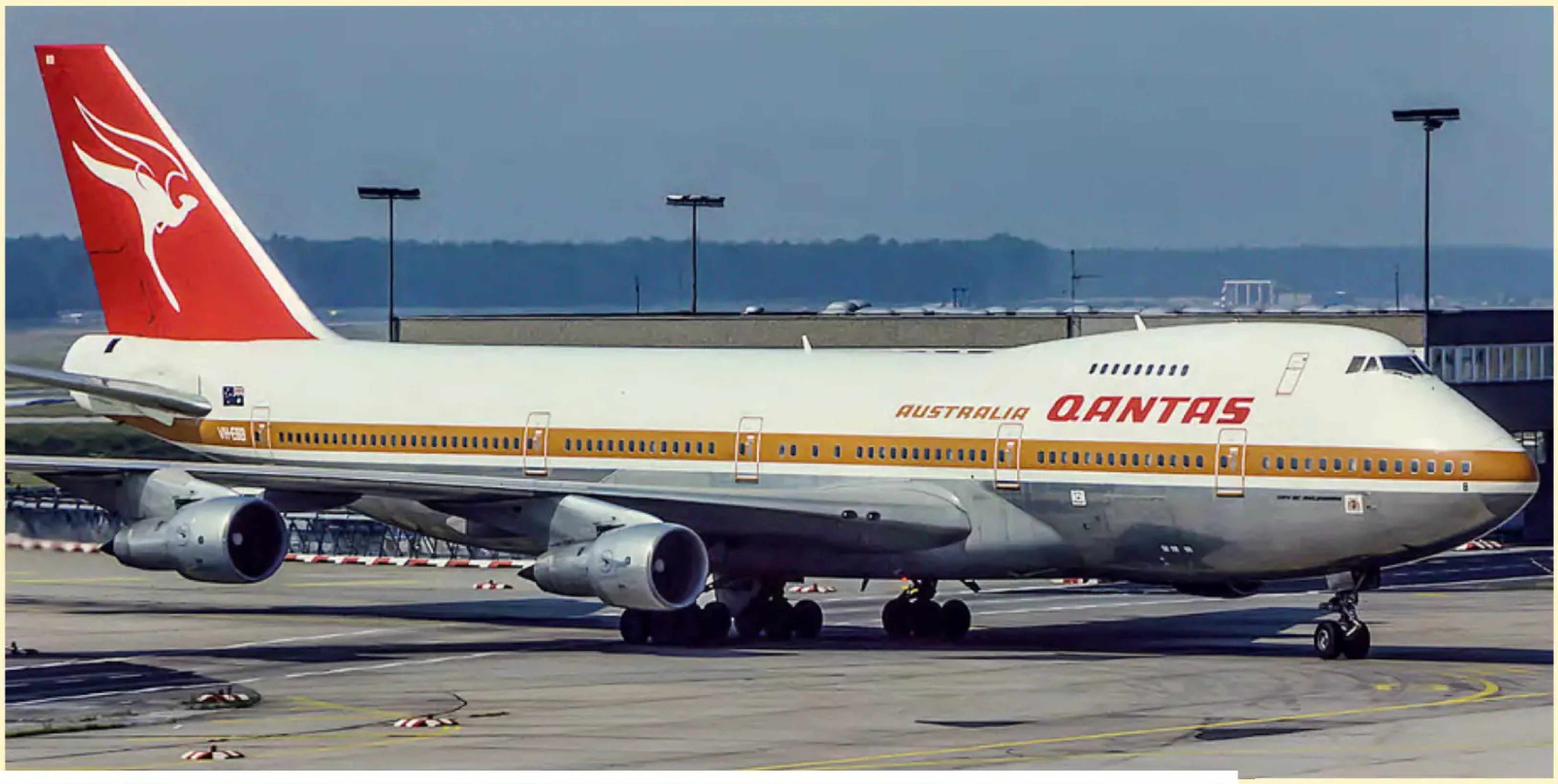

GHANA AIRWAYS
VARIG
B48
B47

What an amazing livery on this Ghana Airways DC-10-30 9G-ANA (48286/369) with additional 'Caribbean Airways' titles on the front fuselage during its push back from the B-gate on July 1, 1984

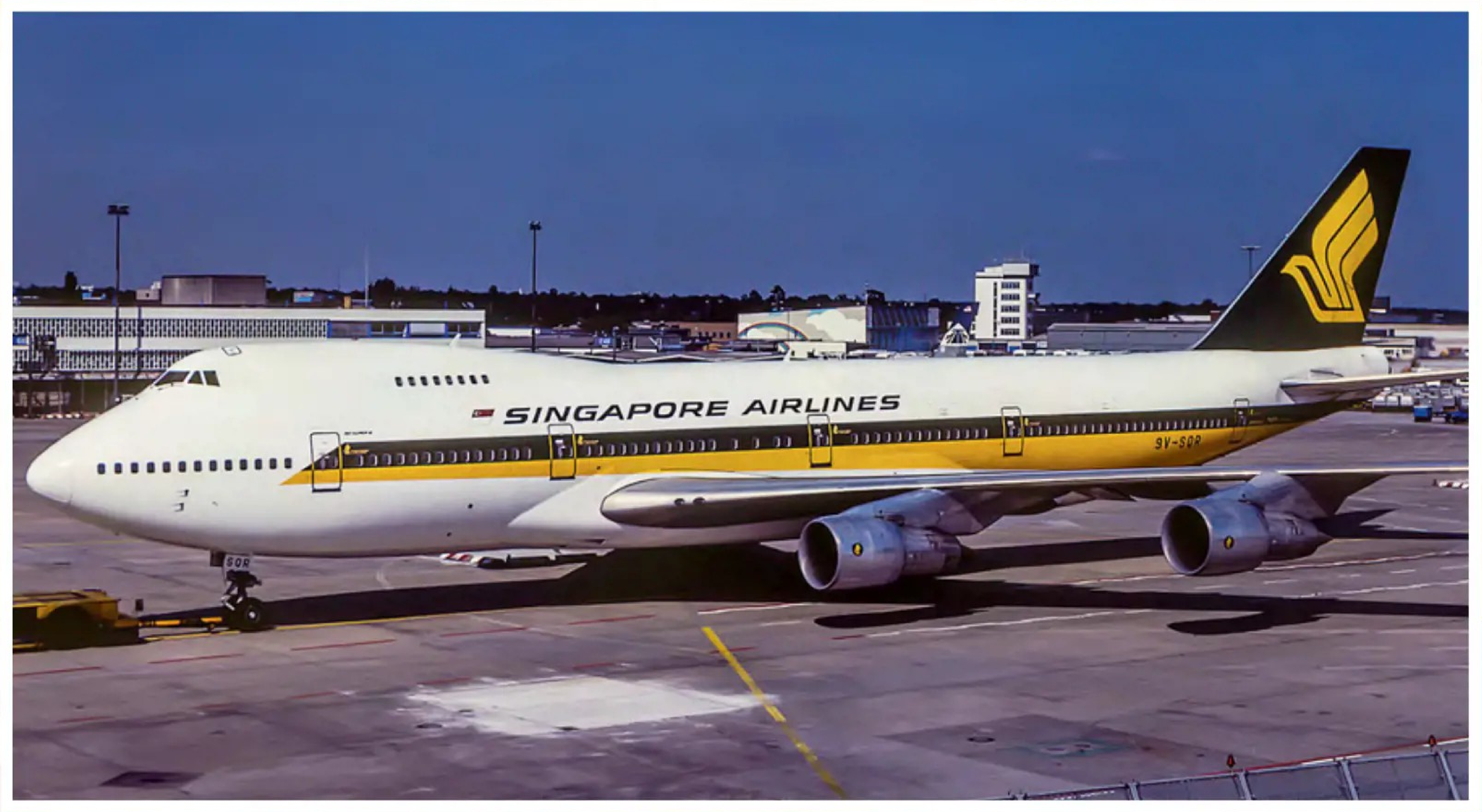

Lufthansa
A12
D-ADGO
DC-10

The Lufthansa DC-10-30 D-ADGO (47926/170) was delivered in 1975 to the airline and seen here during push back on June 25, 1983

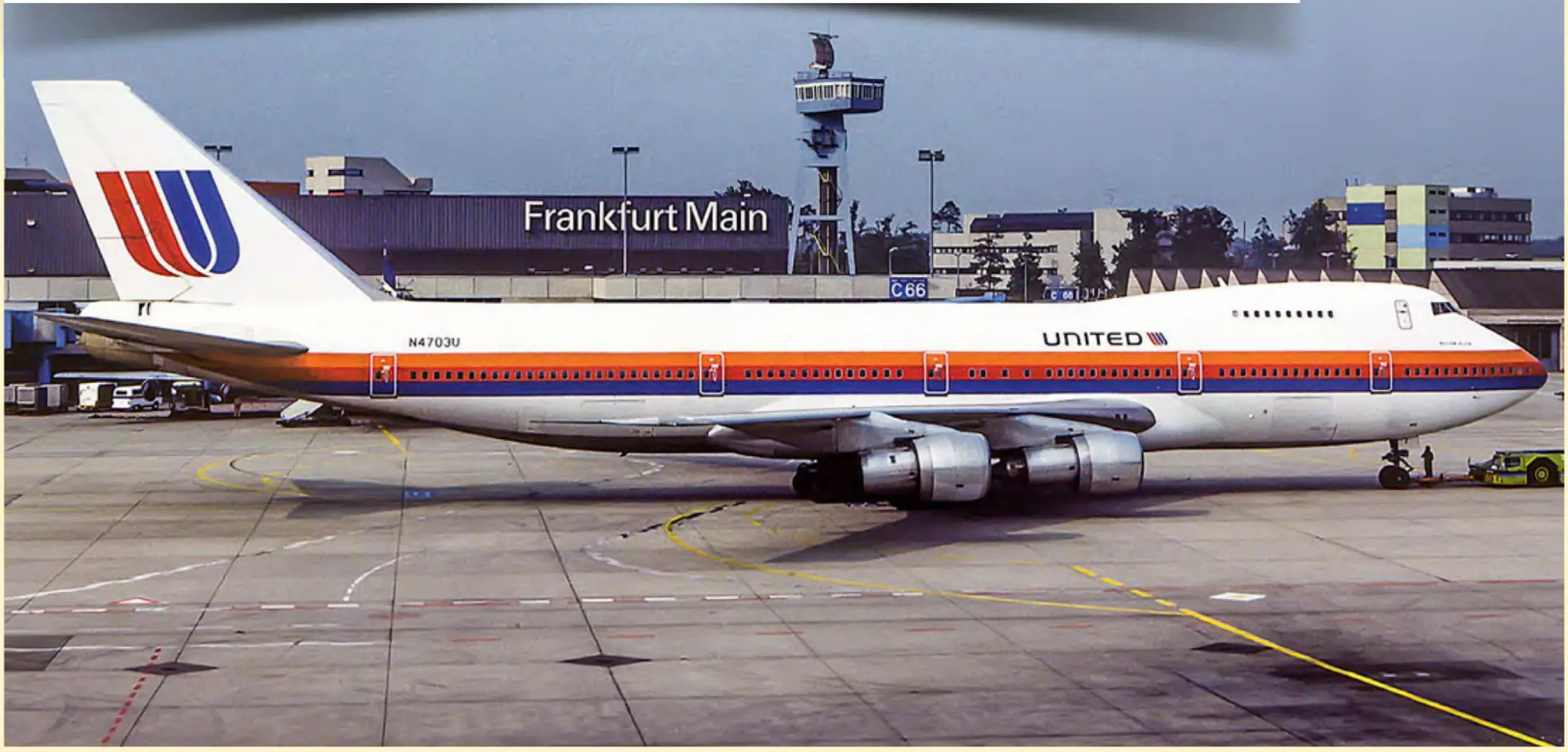
Qantas Boeing 747-200 VH-EBB (20010/149) 'City of Melbourne' on its way to the gate after arrival on June 25, 1983


AUSTRALIA
QANTAS
VH-EBB

Singapore Airlines Boeing 747-200 9V-SQR (21943/475) on a cloudless summer day in 1984


SINGAPORE AIRLINES
9V-SQR

One of the early Boeing 747-100 (19753/52) delivered in 1970 is this United Airlines N4703U, seen here on June 27, 1983, it was still in service until 2008 with Kalitta Air


Frankfurt Main
C66
N4703U
UNITED

Large, Elegant and Powerful

Filip Modrzejewski and **Jakub Śliwiński** review the Kodiak 100 short take-off and landing (STOL) aircraft as they fly with the first example of the type in Poland

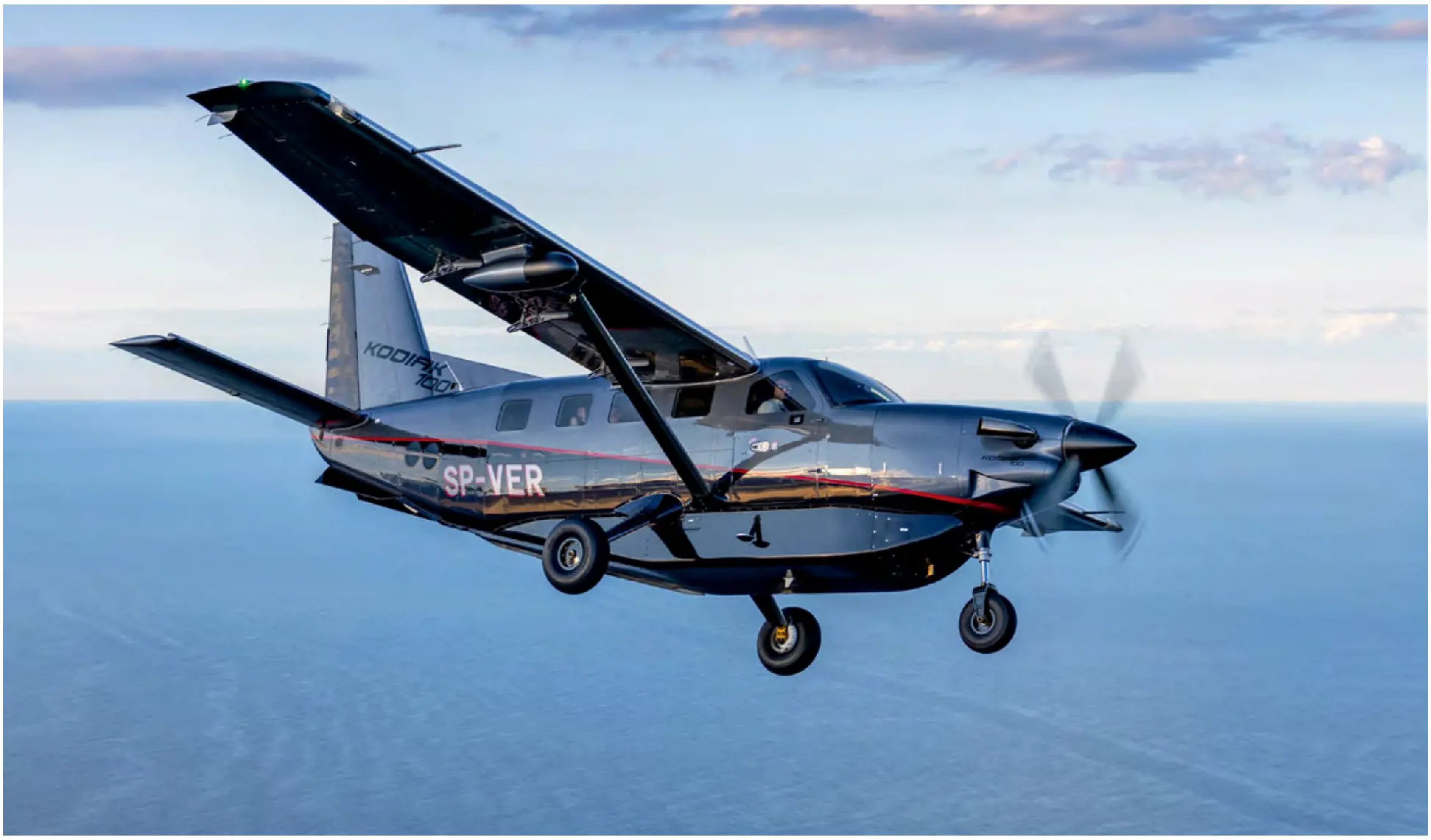
Designed at the beginning of the century, the Kodiak 100 flew for the first time in October 2004 and the initial production model was completed in January 2008, with Spirit Air being the launch customer. The 100th Kodiaks was delivered in September 2013, with almost 400 in service throughout the world. Despite this, it's worth mentioning that EASA type certificate was obtained only in 2017, nine years after the first commercial flight in the US. The original US manufacturer, Quest Kodiak, was acquired by French manufacturer Daher in 2019.

The Kodiak 100 in this feature is the newest variant, a Series III, which was introduced in 2021 and features a modern avionics suite comprising a Garmin G1000NXi and GFC700 autopilot, weather radar and a new 'executive' cabin that seats eight. It can also be fitted with an optional five-blade propeller, which reduces noise and increases take-off performance.

The aircraft sports low-pressure tyres. Its pilot, Dominik, explained: " Thanks to these tyres and the very robust design, we can easily take off from any grass field, even if the terrain is wet or uneven. On the other hand, the tyres also help when landing on concrete strips – as soon as the plane touches the strip, they almost immediately stick to the ground and it is very difficult to bounce or do a so-called kangaroo landing."

▲ First ever Kodiak 100 in Poland during a flight over the Gdańsk Peninsula
All images Filip Modrzejewski

▶ The four-blade propeller is supplied as standard, with an optional five-bladed prop that's less noisy and improves take-off performance



▲ Under the aircraft is a cargo pod divided into two large compartments and one smaller one

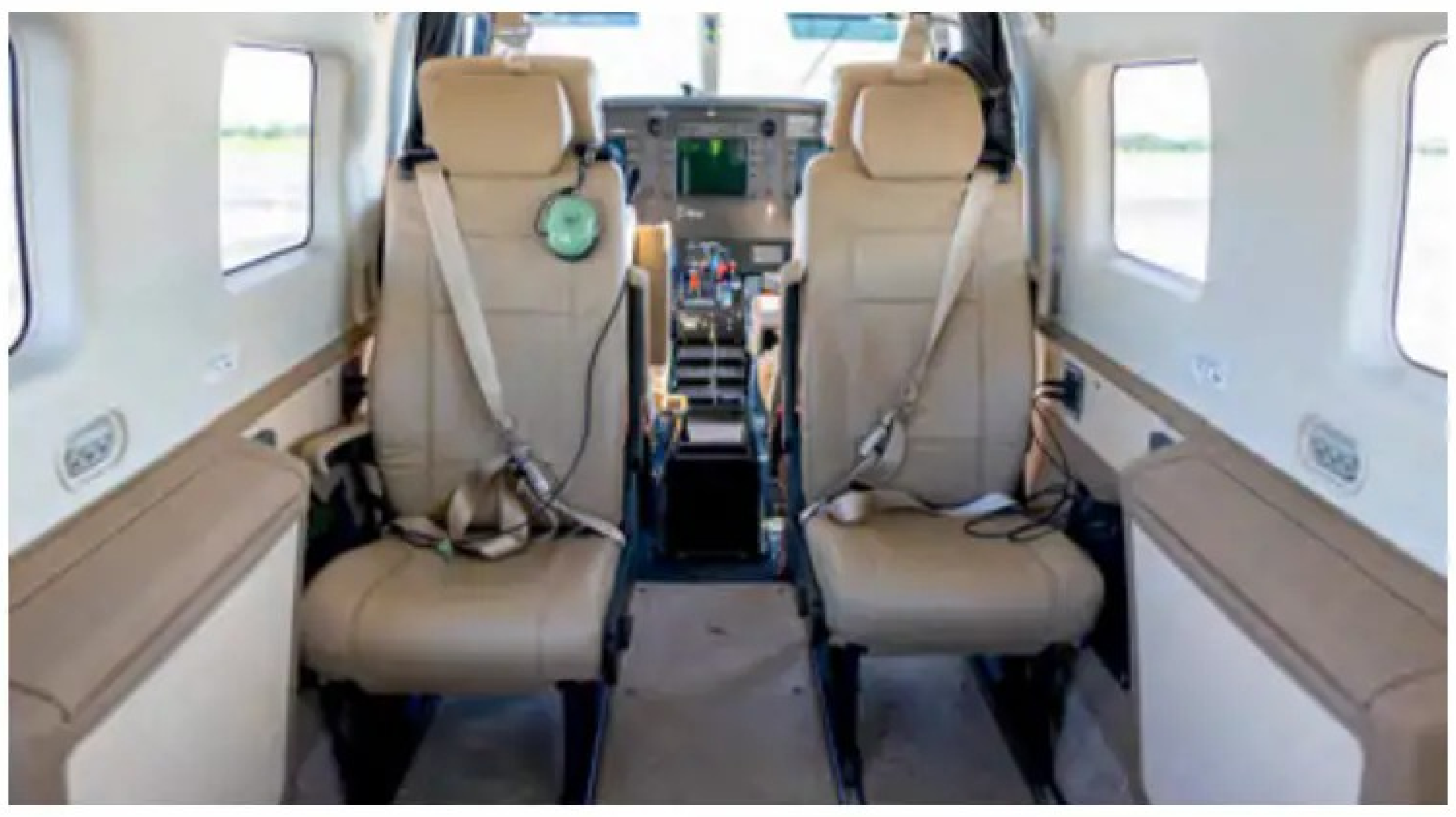
▶ The passenger cabin can accommodate between four and eight seats

◢ The yoke is comfortable to handle, but may feel too small for larger hands

▼ The Kodiak 100 is fitted with Garmin G1000NXi avionics with three screens

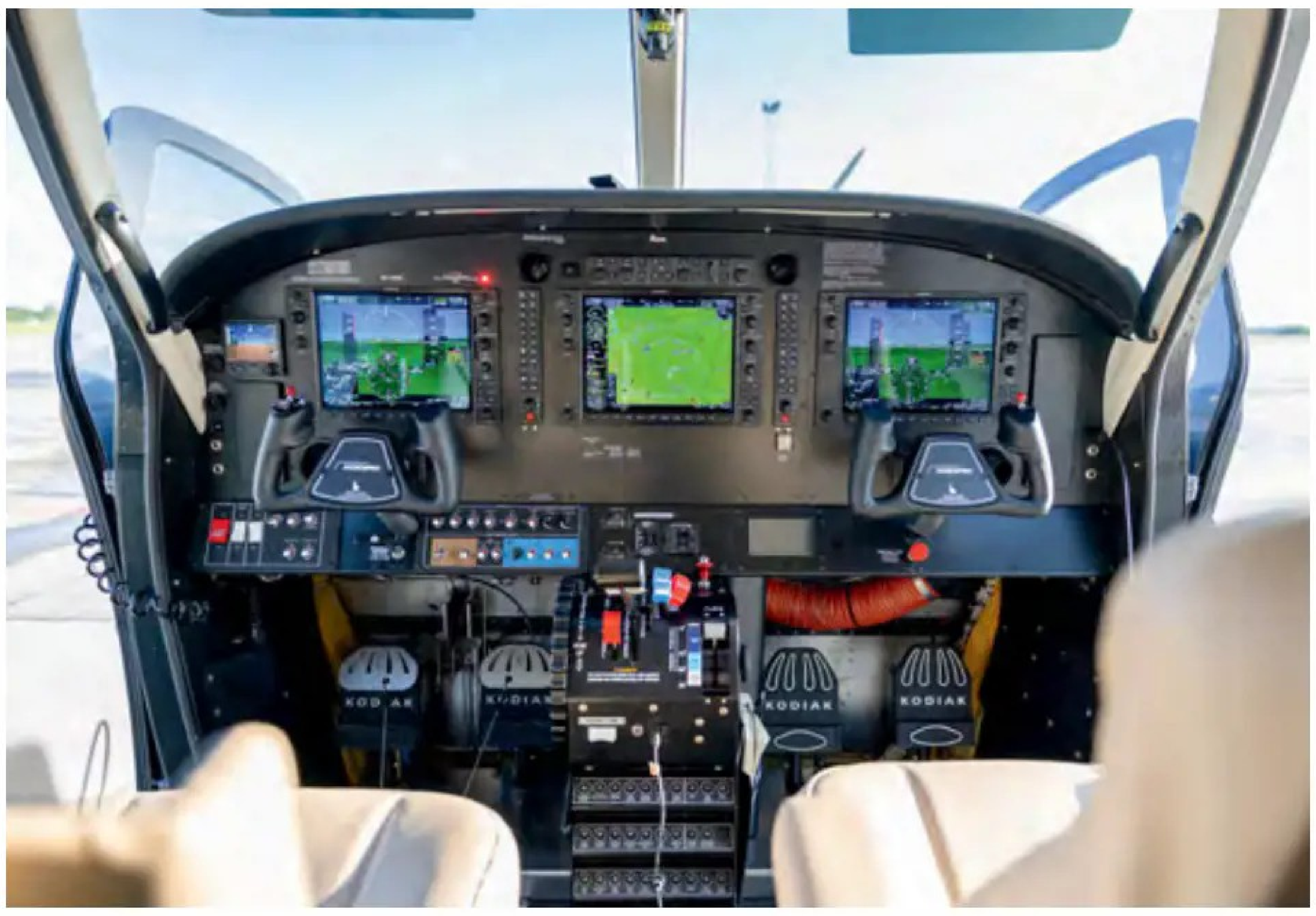
The other thing noticeable is the extra cargo pod underneath the aircraft, which adds a bit of drag to the aircraft but, thanks to the slim shape, is negligible. Dominik said: “Some versions of the Kodiak use this space for special sensors or cameras for observation. In this cargo compartment at the front, we have space for the TKS de-icing system and fluid, along with two large luggage compartments and a third smaller compartment where we can store all the things related to the aircraft.”

Dominik points out one more feature: pressure refuelling via a single point. “This is a huge convenience compared to similar aircraft. There is no need to climb onto the wing or use a ladder, you just connect the fuel line from the bottom of the wing. Thanks to this, we can refuel the aircraft much faster and easier, and the fuel will be distributed over two tanks, one in each wing.”



Onboard

From a pilot’s point of view, there are doors that open on both sides of the cockpit and one can climb aboard using a step that is permanently mounted under the door. It is worth mentioning that the Kodiak has a magnetic door: when open, they attach to the fuselage at the front, so you don’t have to



KODIAK
PARKING BRAKE

▲ The aircraft has a range of almost 1150nm

◀ Weather radar is standard equipment in Series III, suspended under the wing

worry about leaving them swinging open and hitting the bodywork.

The cockpit was designed with the Garmin G1000NXi avionics in mind. All the equipment fits well together and the size and ergonomics of the cockpit are sensibly considered. Dominik noted: “Comfortable seats help on longer flights, and the dual-zone (cockpit and cabin) air conditioning system works well on hot days. In addition, the crew and passengers have access to oxygen, so we can easily fly up to 25,000ft.”

Passengers enter the aircraft through the rear cargo door, which has fold-out steps. The large cargo door also allows up to 1.5 tonnes of cargo to be easily loaded on board – It’s possible to transport a bicycle or motorbike in the back without having to disassemble it. This Kodiak 100 has six seats in the passenger compartment, which can be easily moved on special rails and an additional two seats added.

STOL capabilities

The Kodiak 100 is clearly a STOL aircraft. Despite a take-off weight of about three tonnes and a top speed in the region of 180kt, the PT6A-34 turbine engine produces 750bhp and it only needs to reach 60-70kt and have 250-300 metres of runway to lift-off and land. This is better than most smaller GA aircraft and is impressive to observe both from the cockpit and the ground.

The question naturally arises as to how the Kodiak 100 differs from its nearest rival, the Cessna Caravan. Both are similar in terms of handling, but there are a few differences worth noting. In addition to the features mentioned earlier, the Kodiak has a slightly taller cabin, which improves travel comfort, and it is sleeker and more modern than the Caravan.

Training

Dominik outlined the training process of the Kodiak: “To fly the Kodiak, you need to obtain a type rating single engine turbine (SET) Kodiak 100 for this aircraft. This is a very similar rating to the popular Piper SET or Cessna SET. The theoretical part is about 18 hours of ground school and the practical part is six to eight hours of flying, depending on your previous experience and IFR ratings.”

In Europe, the training centre is Rheinland Air Services in Germany, and practical training comes down to operations with a turbine engine and practicing take-offs, landings and emergencies. Importantly, despite the Kodiak being a much larger and heavier aircraft, you only need a PPL licence to obtain the rating and training can be completed in a few days.

From the cockpit

Jakub Śliwiński took the controls of the Kodiak and described the experience: “The aircraft was ready to fly in a few minutes after starting up, and there was no need for an additional engine check, so we just configured the G1000’s avionics with the route, activated the air-conditioning system and taxied to the runway. Take-off was instantaneous

▼ The front wheel provides good clearance for the propeller, allowing it to operate safely even at high grass airstrips

SP-VER is the registration for the first Polish Kodiak - the aircraft is based in Plock (north of Warsaw, Poland) on a daily basis.

▲ The Kodiak MTOW weighs more than three tonnes, so energy management has to be well planned

– what was interesting was that we took off with 20° (2nd-stage) flaps, instead of 10° as with most aircraft. After about 200 metres we reached 60kt and smoothly rotated up, climbing at 85-95kt.

"The Kodiak is a heavy machine, so at first it can be a little more challenging for people who are used to smaller and lighter aircraft. It generates a lot of torque from the propeller on take-off, comparable to flying an AN-2 or a PZL Gawron, so you have to be 'ahead of the plane' in every phase of the flight to manage the energy properly.

"In the air, the aircraft is very straightforward, stable and pleasant to handle. The fuel burns down evenly from both tanks, so you don't have to worry about switching them manually. The Yoke is designed well, but it could have been a bit bigger, as the left-to-right turns are not very comfortable. Accelerating to 170kt takes only a moment in level flight. On the other hand, we had no problems slowing down such a large aircraft to 100kt."

After a few manoeuvres in the air above the Baltic Sea, we headed back to land at Gdansk airport, making a short landing, approaching at 75kt. Dominik noted: "This is one of the most critical phases of the flight. We have to be very careful about energy loss and plan our touchdown accordingly, because the turbine engine has a much slower acceleration than a piston engine and does not follow the hand as quickly."

After touchdown, we put the engine into reverse mode, applied the brakes and the Kodiak stopped in less than 300 metres – an impressive result.

There is no doubt that the Kodiak 100 is a well-designed aircraft. STOL characteristics, a large and elegant cabin, comfortable operations and a high payload with a very good range and speed are its major advantages. The first model is already flying in Poland, while more and more of these machines are appearing in Europe – a trend that will likely expand in the coming years. **AN**

▶ Commercial pilot Dominik Punda also works as a flight instructor

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Jon “Huggy” Huggins – A high flying career

Aviation News interviewed **Jon “Huggy” Huggins** about his career as a USAF Lockheed Martin U-2 Dragon Lady pilot. Huggins has employed the U-2 in a variety of theatres and has been an instructor pilot on the unique ISR platform on and off for decades

Retired U.S. Air Force Lt. Col. Jon “Huggy” Huggins, right, and retired Col. Dean “Gucci” Neeley, 1st Reconnaissance Squadron U-2 Dragon Lady instructor pilots, prepare to taxi a U-2 on to the flightline USAF/DVIDS

Huggy can be seen on a high altitude training mission from Beale AFB in the unique yellow pressure suit worn by 9RW U2 Dragon Lady pilots Jon Huggins

Q Tell us how your USAF career started and how you became a U-2 pilot

A “I started pilot training in 1985, I gained my wings in 1986. I was a first assignment instructor pilot (FAIP) T-38 for three years. About two years into that, my plan changed, and I pivoted to the U-2 Program. I didn’t know it was an option until another instructor told me about it. I’m sure glad he did!”

Q How did it feel to be selected to fly such a unique platform as the U-2?

A “I only had a little over 900 hours of T-38 experience. My interview flights weren’t very good, but my learning curve was just enough that they were willing to take a chance on me. It was exhilarating to get accepted so early in my career. This was May 1989, and I had just turned 26 the month prior.”

Q What does it take to become a U-2 pilot at the 9th RW?

A “It takes roughly ten months, there are nine dual sorties you must fly before going solo, which is about 20-22 hours of flying. Except in some rare cases, we start them off with a T-38 qualification. In the U-2, we start with the basics of ‘flying the jet’. Then we introduce them to high altitude operations. After that, we begin to incorporate the sensors and tactics. To complete the Basic and Mission training is a total of 17 sorties.”

Q You also instruct in the T-38 – how many does the 9th RW have and what is its mission?

A We have 12 T-38s supporting currently; it is a great companion trainer and allows the pilots to maintain proficiency at a fraction of the cost of the U-2. Plus, the U-2 is a limited airframe and there simply aren’t enough of them to allow the pilot cadre to fly them enough. I believe that the amount of airmanship that is developed in flying the T-38 in a variety of conditions and training missions cannot be replicated in a sim. It’s way more than just learning the functions of the jet.

Huggy and Gucci pose in front of tail number 081 which was retired on the day the phot was taken. All images Aviation News unless stated

BB
240
U.S. AIR FORCE
USAF

▲ The T-38 is a vital asset used by the 9thRW seen here over home base, Beale AFB in Northern California. Huggy has surpassed over 4200 flight hrs in the T-38

▼ Huggy can be seen signing out for a training mission in the Bay Area, California in the T-38

U.S. AIR FORCE

Q How many years now have you had the honour of flying the U-2 and T-38, and have you flown any other aircraft?

A "I flew the U-2 off and on from 1989 until 1993, then a three-year gap. I then commenced flying the Dragon Lady again in 1996 until 1999, then a three-year gap and restarted in 2002 for 12 years until 2014. I then had a final six-year gap and started again in 2020 until today, where I am an instructor pilot – it is the job for me, being an instructor pilot in both the U2 and T-38 working with my favourite people in the world, flying in one of the most scenic places to fly... I'm in my happy spot. I now have above 2,600 hours in the U-2 and over 4,200 in the T-38. I also flew the MC-12 in Afghanistan for a year gaining 700 hours via 107 missions."

Q In which theatres have you flown the U-2 during your time in the USAF?

A " I flew the U-2 primarily in Europe since I was the last U-2 pilot to go to RAF Alconbury, UK, out of training, and I spent over three years there. I was also the detachment commander of the U-2 squadron in Saudi when the Second Gulf War

◀ Huggy's personalised helmet, with both the U-2 Dragon Lady and T38 represented. Also represented is Huggy's solo number

▶ Huggy seen in the cockpit on a low training flight using the usual USAF oxygen mask system. Also visible is Huggy's orange flying suit. This suit is worn by the retired/civilian instructors at Beale AFB Jon Huggins

▶ Huggy seen driving the chase car, known also as the mobile. The Mobile is driven by qualified U2 pilots and is utilised to guide the U2 down to touchdown on the runway

kicked off. I've also flown in Korea, the Med and through the Caribbean while TDY [on temporary duty] to Key West. Many of these missions are special and some are downright scary, all theatres have their nuances, and we employ the aircraft in a very similar manner in each location."

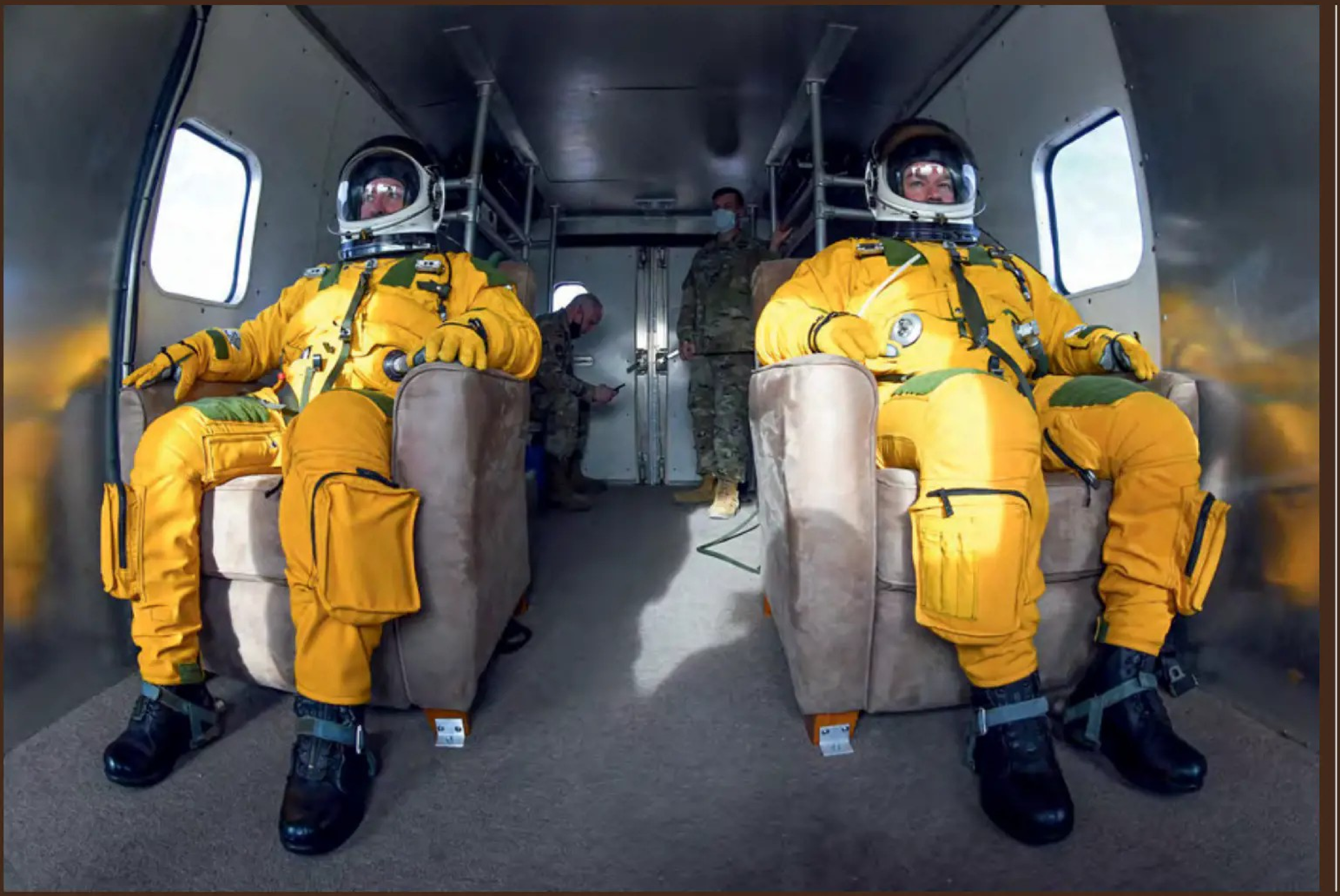
Q Which one of these was your favourite assignments as a U-2 pilot?

A "My favourite assignment was flying the U-2 / TR-1 out of RAF Alconbury, UK. I loved everything about it. Well, almost everything. The winds were bad in the winter, and we didn't get much flying when they got gusty. I led about 40 people and one 'Deuce' to Key West in 2008 for 45 days. That was a pretty good TDY!"

Q Since starting to fly the U-2 in 1989, what has changed about the Dragon Lady?

A "A lot has changed, both with the airplane and how we employ it. The sensors are dramatically better. The engine is more reliable and gives us extreme sortie duration, we are capable of flying the jet for 14+ hours. The cockpit avionics have completely changed. The visibility out of the front windscreen is greatly improved. About the only thing that is less 'better' is the pressure suit."

▼ A U-2 Dragon Lady heads out for a high training mission above California at Beale AFB



Huggy can be seen alongside fellow U2 instructor "Gucci" in the crew bus, both in their high pressure suits with a high altitude training flight ahead USAF/DVIDS

A Tu-2S Dragon Lady is chased down Beale's runway at sunset. The Tu-2S is used to teach new U2 pilots and for currency training for U-2 pilots

Q The time on station capability is a very big factor about the U-2; what is the longest mission you have carried out in the Dragon Lady?

A "My longest is 12.1 hours. I did it twice. Both were ferrying the U-2 from the UK to the US, and both ended up with issues that made the sortie 'eventful'. The first one, I was heading to Tampa, Florida, and diverted to Macon, Georgia. Bad weather, very low on fuel... and then the flaps wouldn't come down. It's never a dull moment!"

Q Asking an obvious question, how does it feel when you are potentially the highest person in the world in non-orbital flight at 70,000ft-plus and does it get a little lonely or claustrophobic?

ABOUT THE MACHINE

The Lockheed U-2 Dragon Lady first flew in August 1955 and entered service in 1956, but its operational use remained secret until 1960. The U-2 was developed and created at Lockheed's 'Skunk Works' to fly at high altitude for surveillance missions over Soviet territory.

Fast-forward to 2024: The U-2 still plays a vital intelligence, surveillance and reconnaissance (ISR) role that one could argue no other platform could perform, keeping a watchful eye on certain areas and conflicts. Since moving from Davis Monthan Air Force Base in Arizona in 1976, it has been home-based at Beale AFB, California, with the 9th Reconnaissance Wing (RW). There are also multiple U-2 detachments across Europe and Asia, with personnel working around the clock to keep this vital asset operational.

A "It is a nice novelty, especially considering there are seven billion people on Earth. But I don't dwell on it. The view is too good to do that! It is never claustrophobic for me. It is very quiet once established up high. The sound of the oxygen regulator... the hum of the engine... when things are going well and there is no turbulence, it is very peaceful. If there is bad turbulence, it will potentially be one of the most fearful things you will experience in an airplane."

Q An obvious nuance to other military platforms, is that the U-2 is guided to land via a chase car on the runway – are all U-2 pilots qualified to drive the chase car, and what is modified in the car?

A "Yes, all U-2 pilots are qualified as a 'mobile'. Driving the car and chasing 'The Deuce' is only one small piece of what the mobile does when deployed. But it is the visible part that everyone wants to know about. The modifications are that it has a 'police package' and has radios added to a normal 'Dodge'."

Q Another difference noticeable while a U-2 is on the runway is that on take-off, the auxiliary wheels/'pogos' drop off and are re-attached after landing. Why does this happen and who does the re-attachment?

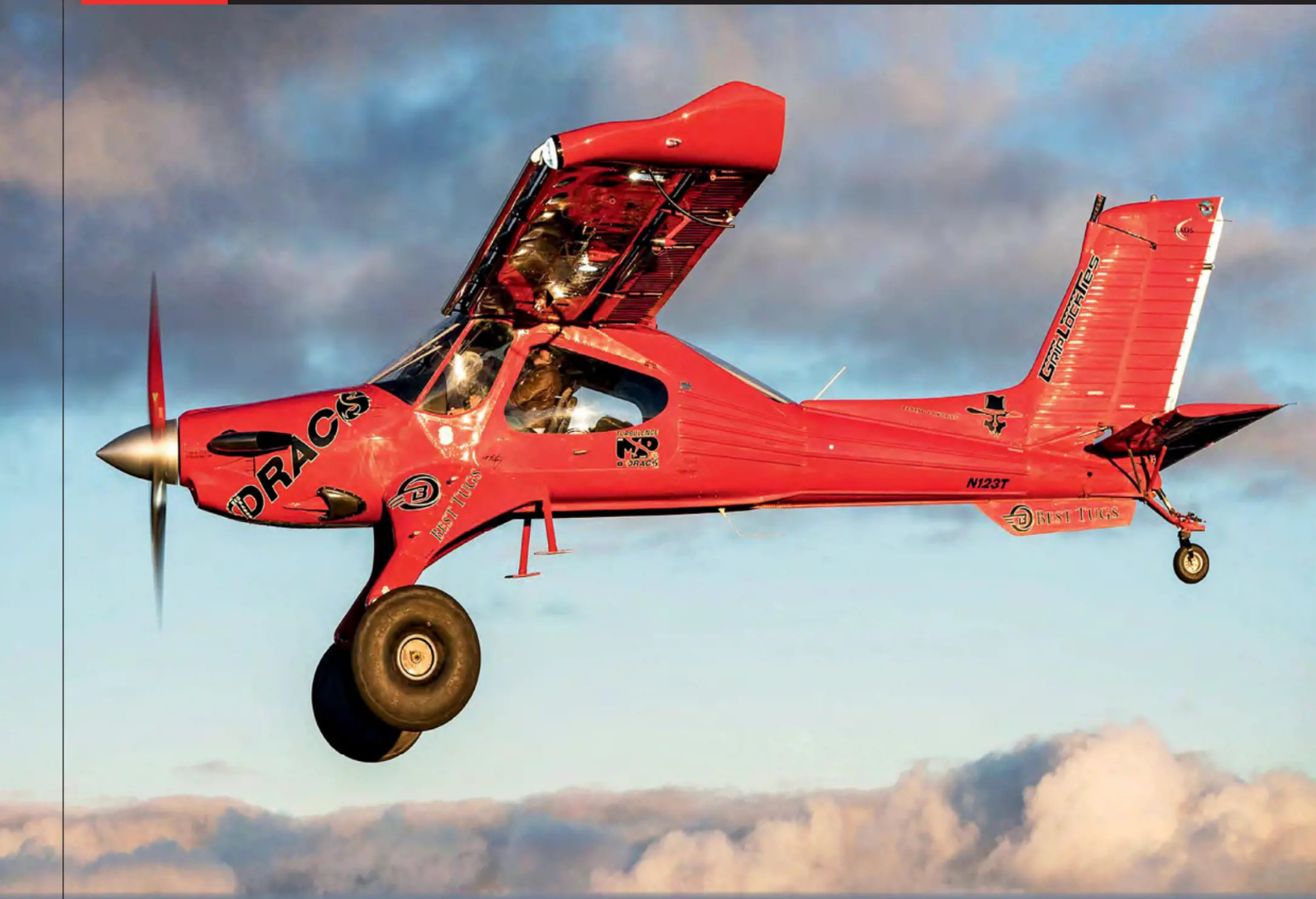
A "The two 'pogos' are there to maintain balance during taxi and take-off as to be capable of its high-altitude characteristics, the U-2 was designed with a very large wingspan. The wings are also protected during landing via a titanium skid on the wingtips. We have a crew of maintainers who take turns as the pogo crew and they handle the re-attachment of the wheels back into the wing."

Q If you take away the high-altitude capability, what do you find most unique about the U-2?

A "The U-2 is an aircraft that doesn't pass ANY of the mil-spec criteria that the USAF requires in their aircraft. So, the 'stick and rudder' skills you need to fly the aircraft are demanding. Even experienced pilots will have difficult days doing basic flying in the U-2. It's a lot of fun to fly... but it can be exceptionally hard, too. From a mission standpoint, having a military aircraft that is single-pilot, flies by itself (not in formation) and flies in very politically sensitive parts of the world... well, that's just unique. Back when I first started flying it, we didn't fly with a datalink very much, so we were pretty much on our own. I always imagined my squadron commander watching me take off on a sensitive mission, and hoping I showed back up 11 hours later. Kind of like letting our dog out in the morning and hoping he comes back at dinner time." **AN**

▲ A two-seater taxies out at night for a training mission at Beale AFB. The two-seater was practicing circuits for the pilot onboard to stay current in night flying

▼ Huggy started his career as a first assignment instructor pilot (FAIP) also in the T-38, the same aircraft the 9th RW uses to train and keep its pilots current due to the simplicity of the jet, maintenance and costs



▲ Mike Patey's Draco is very different from the original Wilga, not only due to its PT6A turboprop engine, but also thanks to wing modifications adding to the aircraft's low-speed safety
Mike Patey

Enter the Draco!

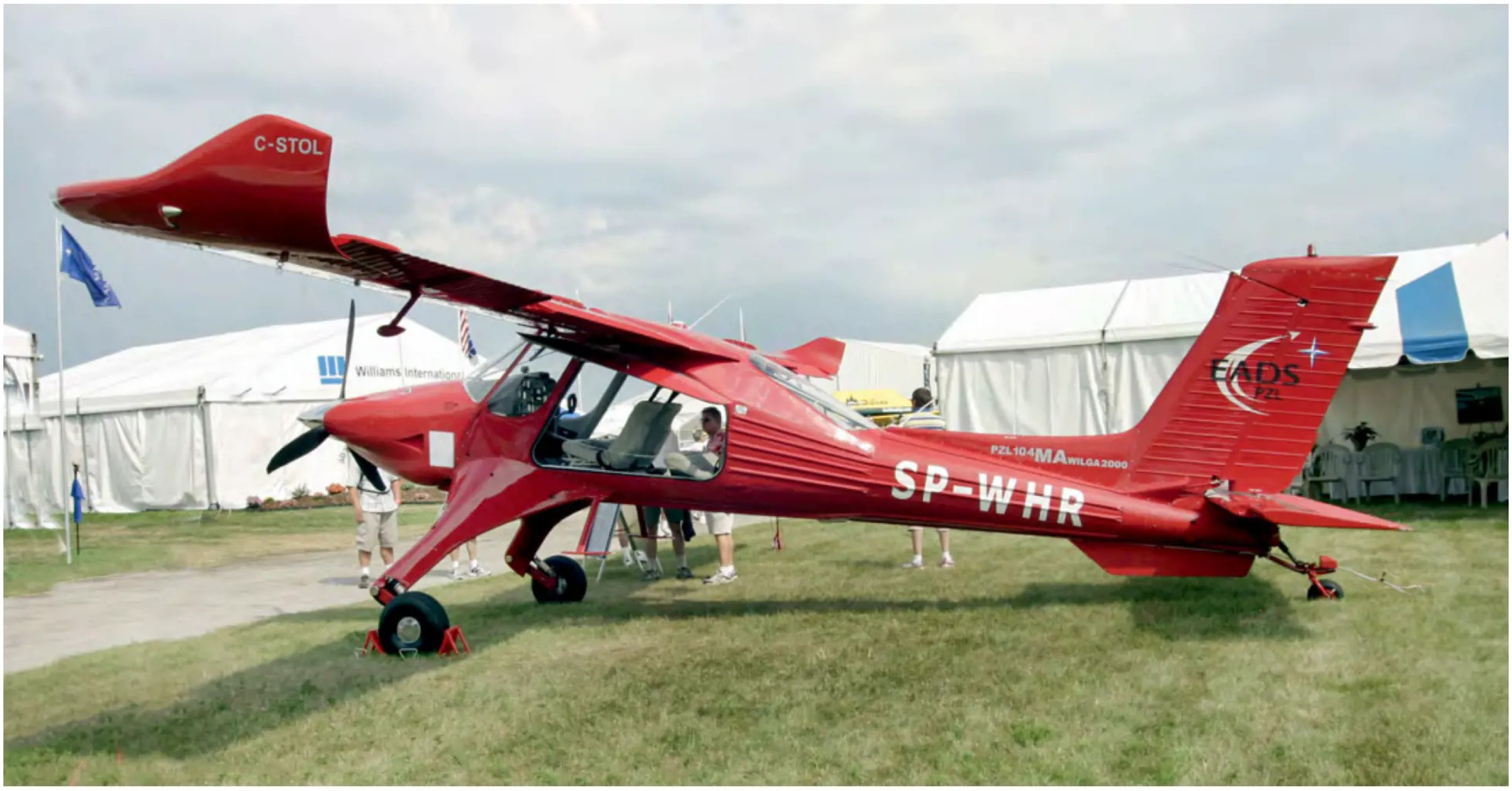
Airbus Poland is launching a new ultra-STOL light aircraft called the Draco. **Rod Simpson** talks us through the innovation behind this new aircraft which will be the latest version of the PZL Wilga

The Wilga? Well, it may be an aircraft you have never heard of. Yet about 1,000 were built and the brand-new variant is thanks to the innovation of an enterprising American owner.

Just to re-cap, the first PZL-104 Wilga flew in Poland as long ago as April 24,1962. The prototype required considerable modification, but its production version was sold widely in civil markets, worldwide. At least 400 served with the Russian DOSAAF sport flying organisation and its unusual STOL performance features made it attractive to many military forces from Egypt to Mongolia and Paraguay, with more than 30 serving in its native Poland.

PZL builds the Wilga

The manufacturer of the Wilga, PZL Warszava-Okecie, became part of Airbus in 2001 and it continued manufacture until 2006 when the production line was closed in the face of declining demand. Nevertheless, hundreds of Wilgas are in service around the World. Large numbers are with



▲ The ultimate Wilga variant was the PZL.104MA Wilga 2000 with a Lycoming IO-540 engine. It was built by PZL after it was taken over by EADS and incorporated many modifications including a redesigned tail and wingtip winglets

private owners, and more than a dozen have been registered in the UK over the years. There have been many variants of the Wilga, and it is valued as a light four-seat communications transport, glider tug, air ambulance and surveillance aircraft, while some have been operated on floats and skis. Early in the production run PZL supplied 39 Wilga 32s to Indonesia with an initial batch built in Germany and the remainder as kits for local assembly as the Lipnur Gelatik 32 (the 'Ricebird'). These were for the Indonesian Air Force, powered by Continental O-470L engines, and mostly served in anti-insect crop dusting and other agricultural roles.

Originally, the Wilga was powered by an indigenous Polish-built WN-6RB flat-four engine, but this soon gave way to the 260hp Russian designed Ivchenko AI-14R radial engine and the many subsequent variants have used a variety of powerplants. From 1968 the principal version was Wilga 35A, but the Ivchenko engine was replaced when the Wilga 2000 was introduced in 1998. It changed to the 300hp Textron-Lycoming IO-540 engine but just 24 were completed before the programme was terminated. It looked different from the original Wilga with its horizontally opposed engine, wingtip winglets and large undercarriage fairings, but its main feature was an increase in gross weight to give extra fuel which doubled the range.

Mike Patey's Wilga

Eight Wilga 2000s found their way to the United States and one of the owners was entrepreneur and aviation enthusiast, Mike Patey. Already a successful land developer and owner of multiple innovative businesses, Mike has built several aircraft including a couple of Lancairs, a Vans RV-10 and his own designed 'Scrappy' and 'Turbulence' to his own performance modifications. Patey used the Wilga to commute to his property in the high country, but, loaded with family and camping equipment, the aircraft struggled

▲ This Wilga 35 was originally imported into Britain in 1997. Carrying the uncomplimentary title 'The Startled Fart', it was withdrawn from use in 2022

▲ Several Wilgas were imported into the UK and G-BTNS was fitted with a tail attachment for towing gliders. A Wilga 80 was a version modified to allow sale in the American market

▲ Many Soviet era countries received Wilgas and this 35A, YR-VIS flew for many years in Romania and is seen here at the Cluj sport aviation field in 1998

at higher altitudes. Facing ascents up to 14,000ft, the Wilga's piston engine suffered the loss of 50% (and sometimes more) in power output which destroyed its STOL performance. As a result, it was inevitable that Patey would turn his creative attention to the Wilga, and it was not long before it was undergoing "improvement" in Mike Patey's workshop. The result was Draco – the Latin name for Dragon.

Enter the Draco

Patey had already owned one Wilga, which he sold, and the aircraft which would become Draco was the last Wilga 2000 built. His improvements were extensive. Essentially, he rebuilt the wing and enlarged the flaps and ailerons along with adding wingtip cuffs for protection in the event of a ground-loop. There were also new leading-edge fairings which helped to deliver a significant reduction in the stalling speed. Among numerous other changes were additional fuel tanks in the gear legs and a modified undercarriage suspension along with improved brakes and oversize wheel tyres to accommodate his remote site landings. To cope with the high altitudes, he added oxygen points for all four seats. Draco got a new electrical system and has a Garmin-equipped cockpit. It features dual 10.6in G3X Touch flight displays, a GTN 750 GPS/Nav/Comm/MFD, GMC 507 autopilot mode controller, and G5 electronic flight instrument as a standby. Behind the scenes, Mike remote-mounted a GTR 20 comm radio, a three-axis G3X autopilot, GMA 245R BLUETOOTH audio panel, GTX 45R ADS-B 'In' and 'Out' transponder, and a GDL 51R SiriusXM satellite datalink.

The engine cowling was brand new because the Draco had an engine change. Replacing the IO-540 was a 680 shp Pratt & Whitney PT6A-28 turboprop driving a four-bladed MT propeller. This addressed the power reduction issue posed by the Lycoming and gave the aircraft more than twice the output of the Wilga 35A and a cruise speed of 180mph and top speed of 205mph. The net result is that Draco takes off in around 100ft compared with 400ft for the Wilga 2000; it lands in less than half the distance and the stall speed is also reduced by half from 70mph to 35mph.

Airbus and the Draco

This is the aircraft that PZL is now interested in bringing back into production. The Draco prototype, registered N123T, made its initial flight in 2018 but, unfortunately, it was badly damaged in September 2019 while departing from Reno-Stead Airport. Strong wind gusts tipped the aircraft over but, happily, the occupants emerged unharmed. Nevertheless, undeterred, Patey returned it to his workshop for rebuild and pressed forward with talks with Airbus Poland. The result is the launch of the new HyperSTOL Airbus Draco and it is intended to bring several different models to the market with final assembly carried out in the USA.

Mike Patey has already predicted that the new aircraft will have "more power, more range, more speed and climb, more payload, lower drag and shorter takeoff and landing". These are ambitious targets but will result in an outstanding bush aircraft which is, essentially, a wholly different aircraft from the original Wilga. Airbus is clearly impressed – but the new Draco will not be cheap, and it remains to be seen whether there is a profitable market out there for such a specialised machine.

▶ The original Wilga had the Russian Ivchenko AI-14R radial engine and was widely used by the Soviet DOSAAF civil aviation organisation for basic training and glider towing, as seen here All images Rod Simpson unless stated

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The December 2024 issue of *Pilot* magazine features a newly restored Mk IX Spitfire as its cover star. Stefan Löfgren took to Norwegian skies with former SAS colleague and one of Europe's most experienced warbird pilots, Rolf Meum, to fly the impressive two-seater aircraft.

It's back to the future for a full flight test of the weird and wonderful VariEze. The quirky but high-performing and efficient design that brought composite structures to homebuilt aircraft still looks sensational today, almost half a century after it first appeared. Plus, *Pilot's* tips and strategies for dealing with engine failure after takeoff (EFATO).

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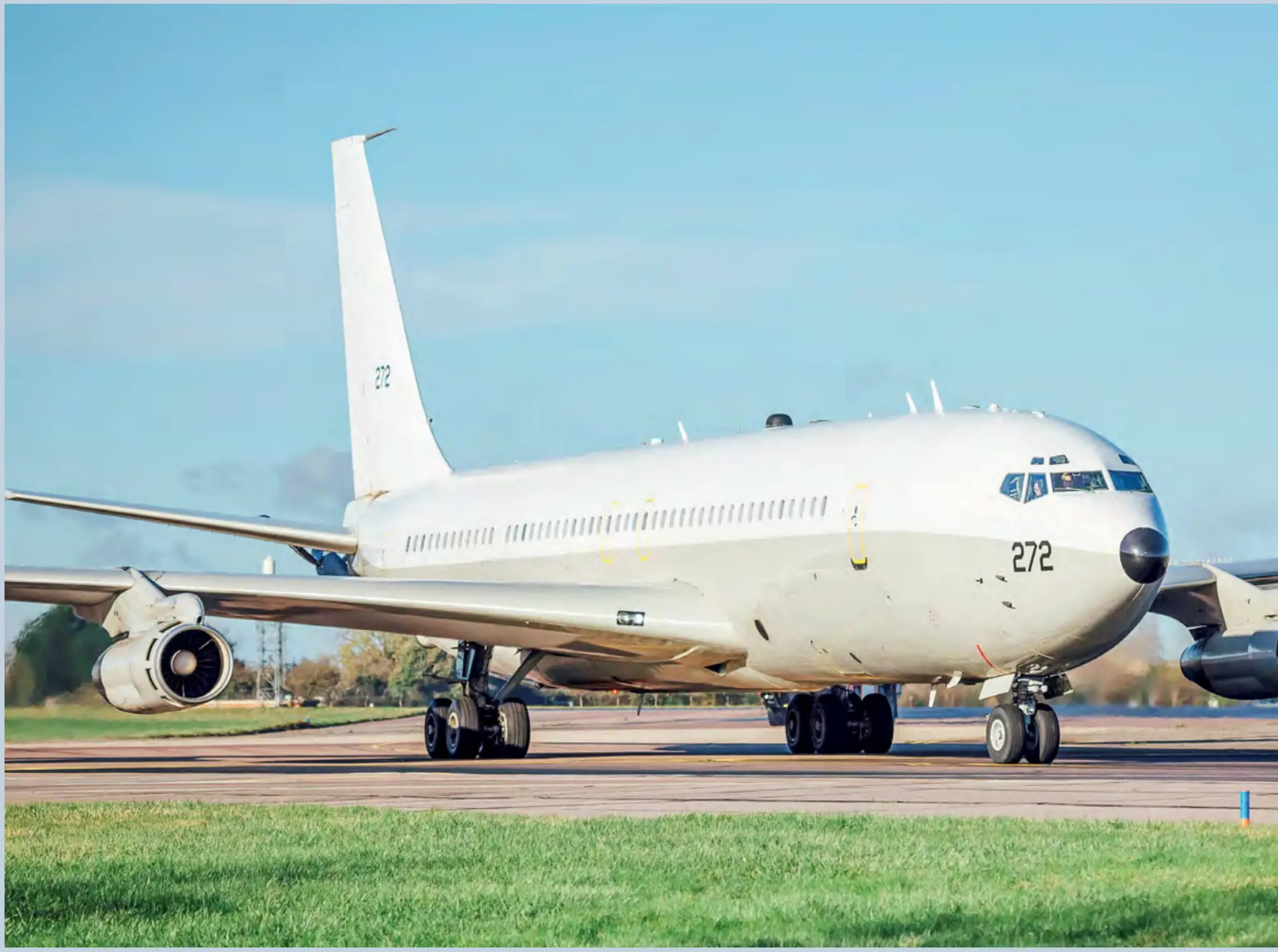
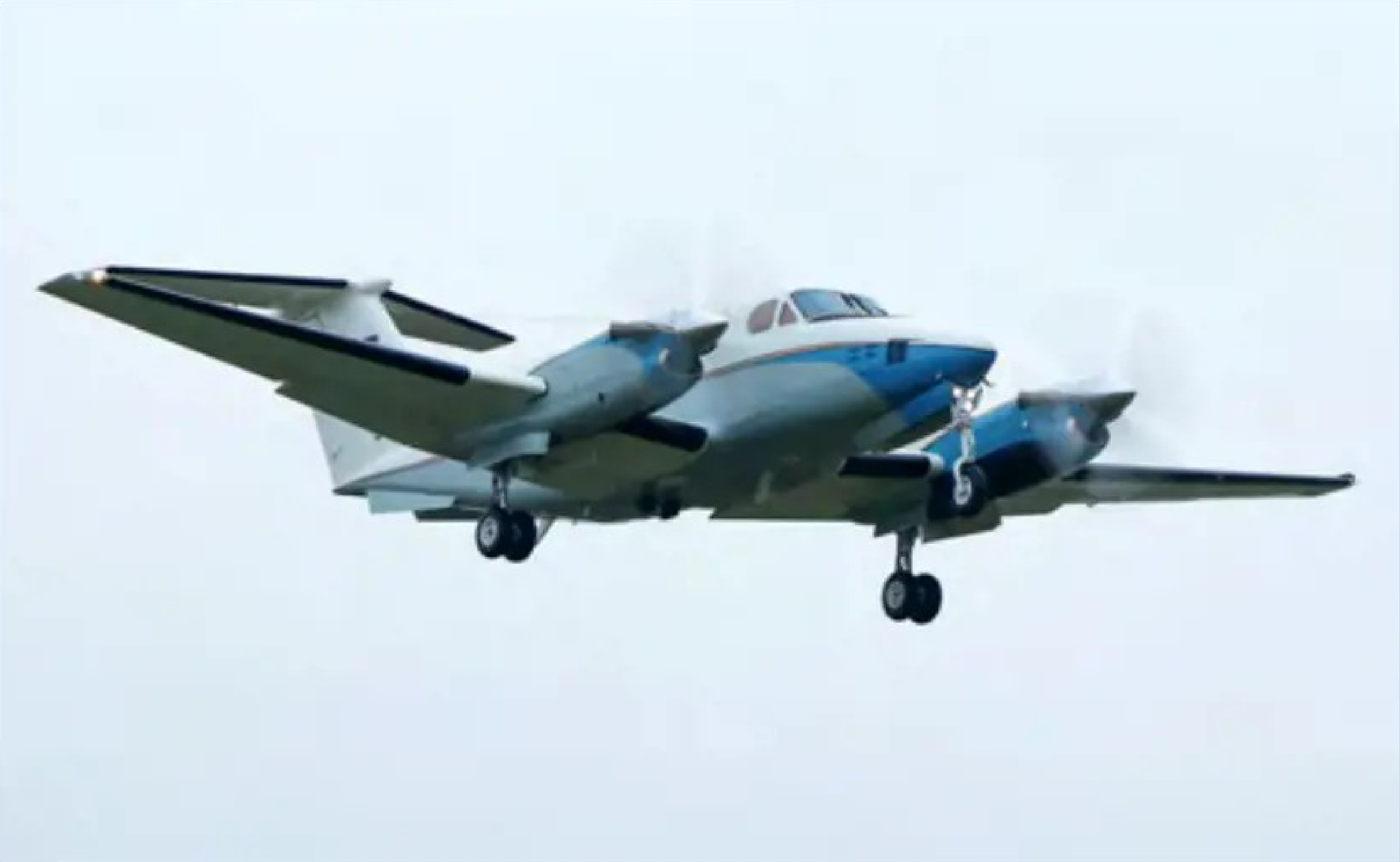
Photo Credit: Keith Wilson

MILITARY MOVEMENTS

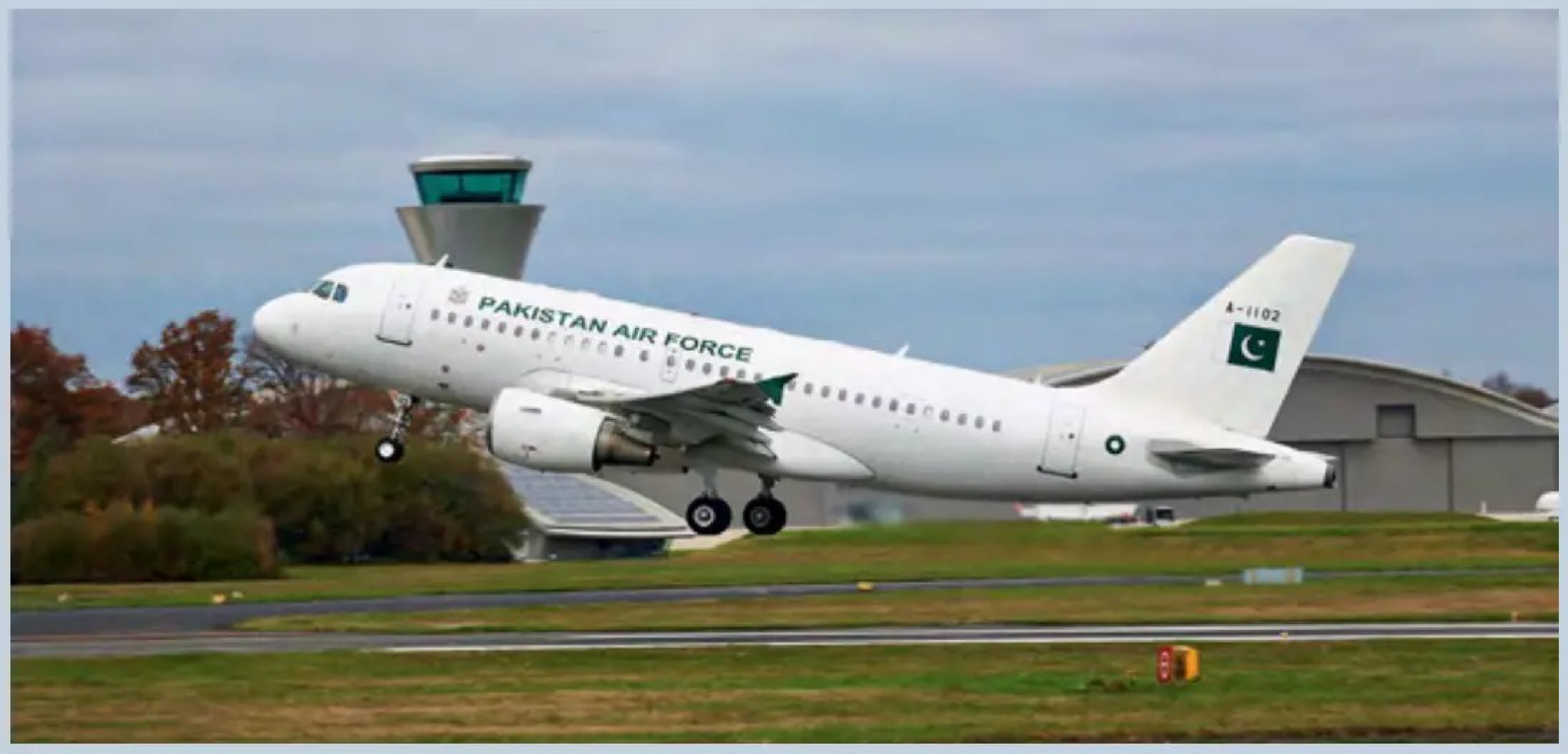
A collection of images gathered of interesting military aircraft movements throughout November in the UK.



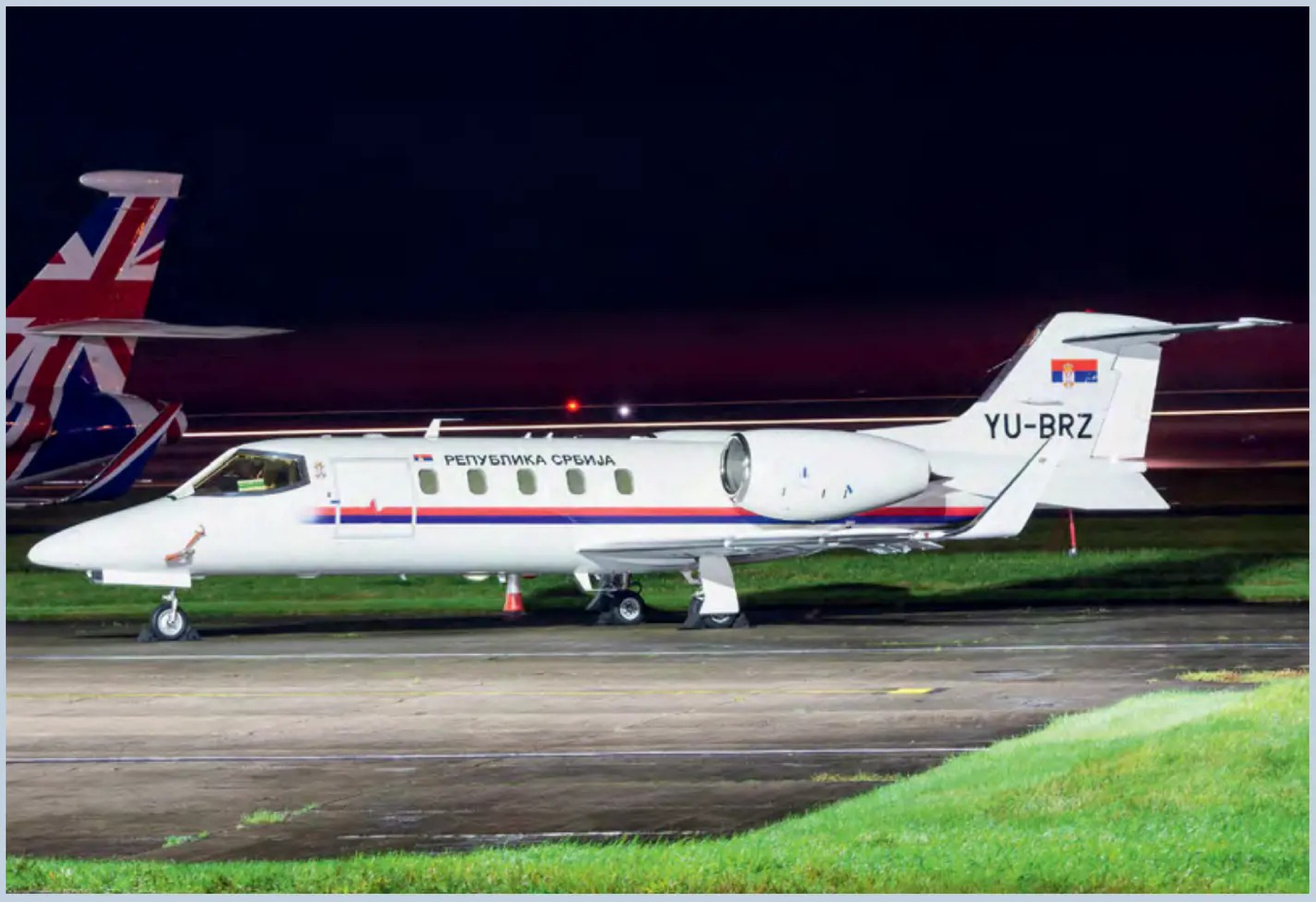
▲ A Israeli Air Force Boeing 707-300 with the noticeable Pratt and Whitney JT3D engines passes through RAF Brize Norton with a rather impressive one hour turn around from arrival to departure. Sam Comber



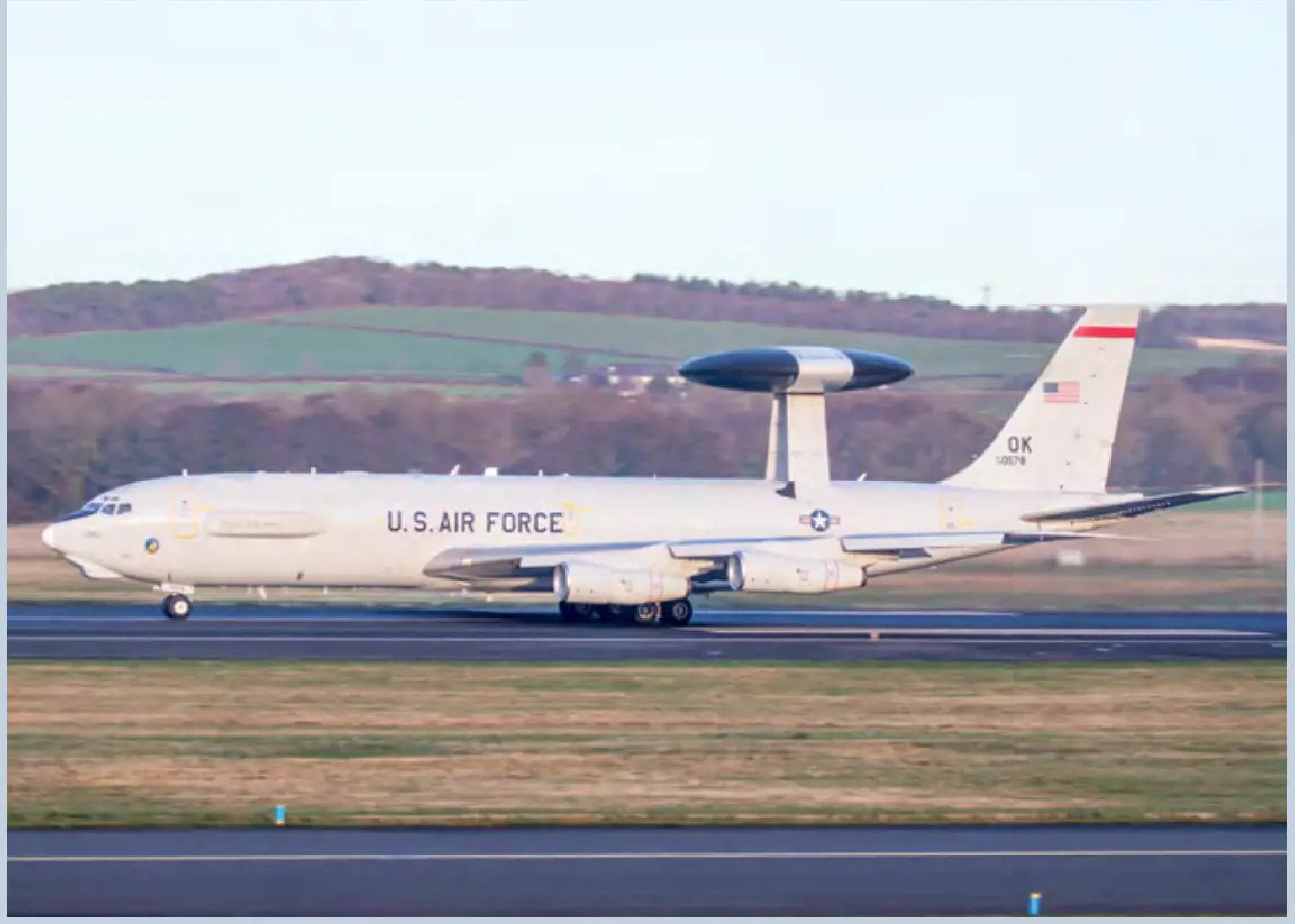
▲ USAF C-12D Huron 83-0497 arrives at Cambridge Airport on November 4 as "Dragon 11". The US Embassy Flight Oslo transport arrived from Helsinki for a brief visit before departing back to Oslo on the same day. Michael Miskin



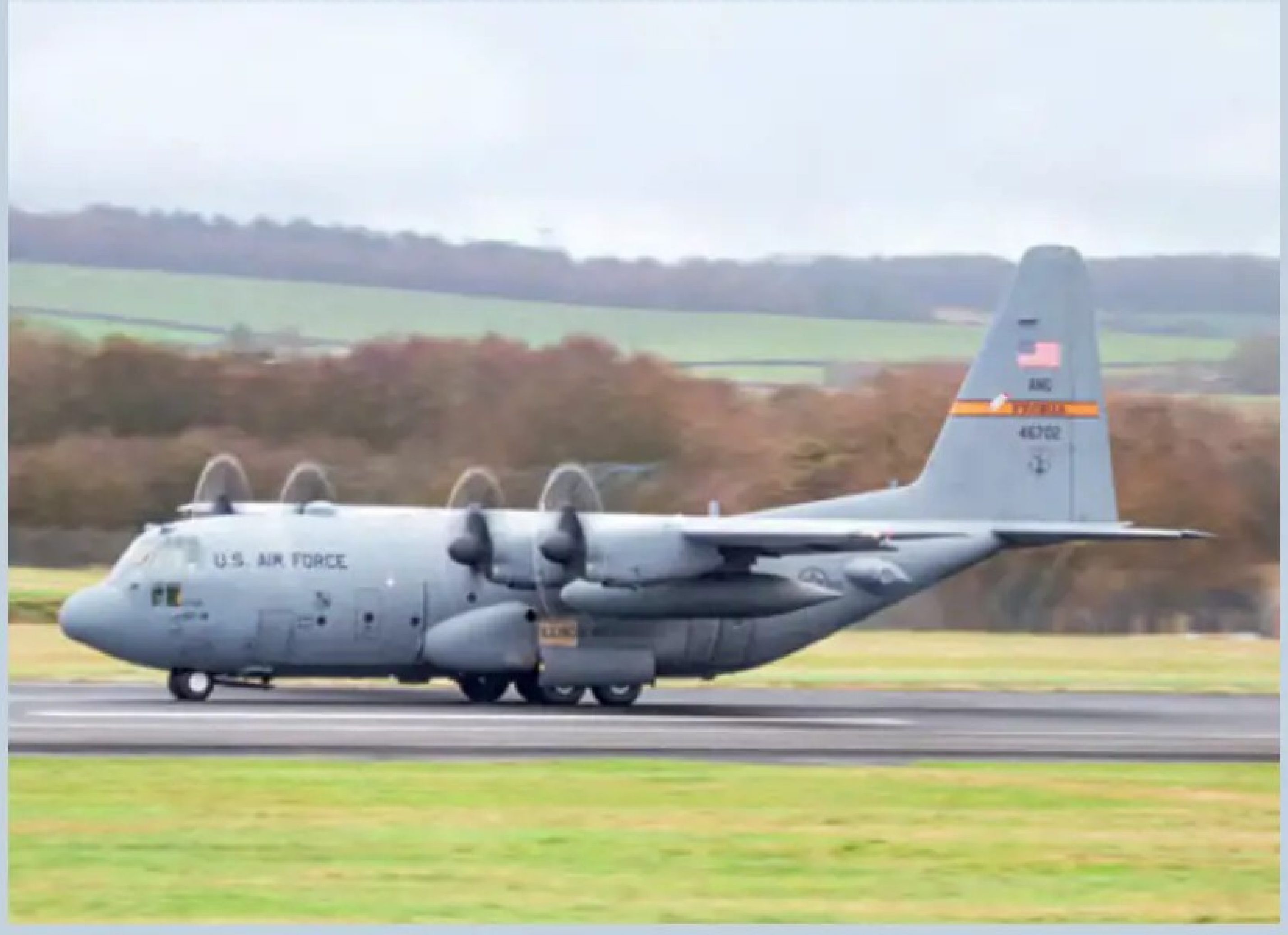
▲ Pakistan Air Force Airbus A319-112 which passed through Farnborough on a QTR November 16 early morning. It arrived from Istanbul at 0820 and returned just before 1000. Call sign 'PAAF052' and it's based at PAF Base Nur Khan and operates with No.12 (VIP) Squadron 'GlobeTrotters. Ian Harding



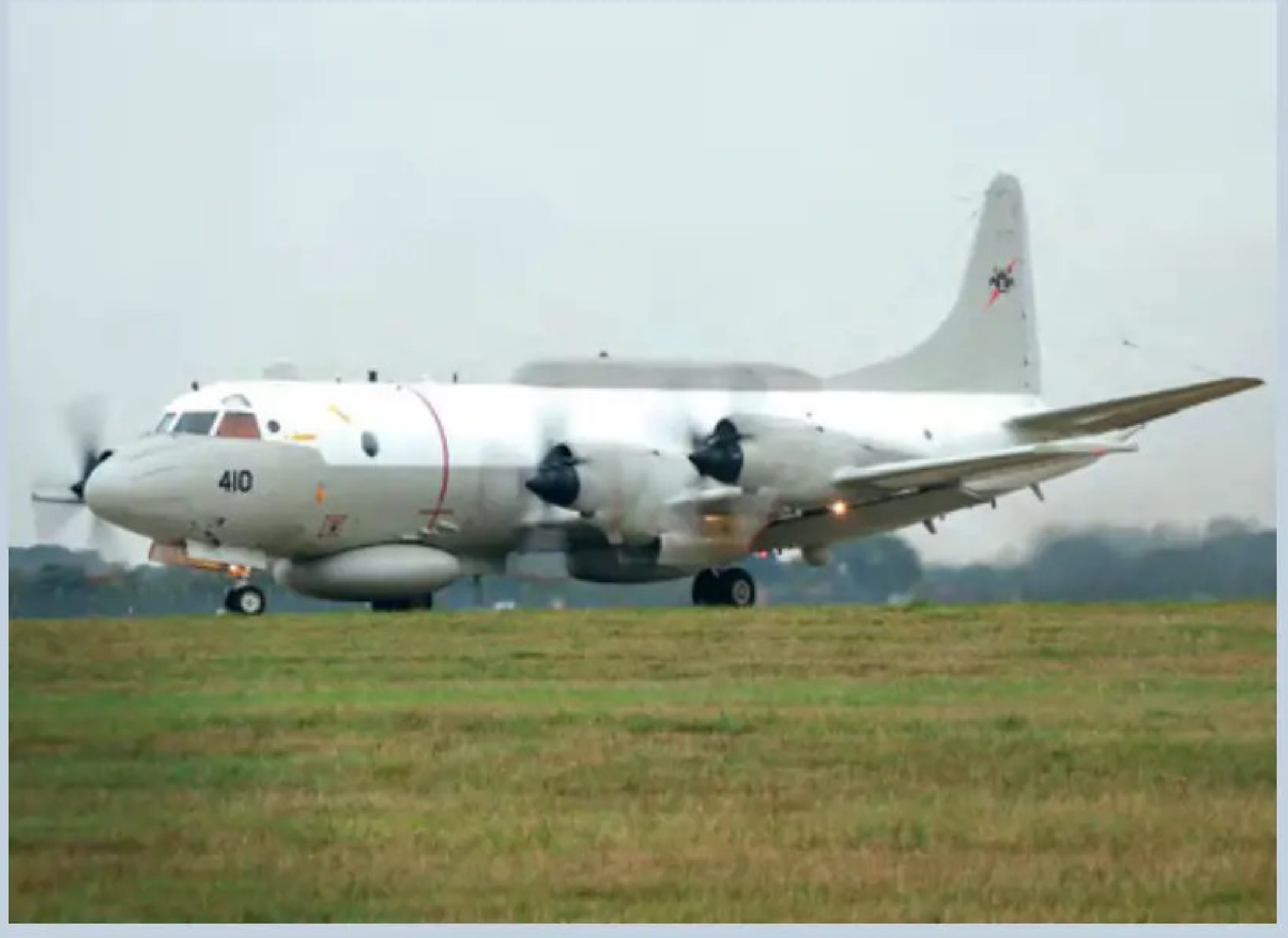
▶ Seen at Glasgow Airport on 3rd November in the form of Learjet 31A YU-BRZ. It's operated by the Serbian Government Aviation Service and believed to be visiting in connection with the 92nd Interpol General Assembly taking place in Glasgow from 4-7 November. Stewart Marshall



◀ One of two USAF E-3B's that went through Prestwick on November 19 . Quite unusual movements for PIK. They arrived from Souda Bay where they had been operating and passed through Prestwick heading for Bangor. One went tech after departure with a fuel leak and returned to Prestwick before departing two days later. Both stopped for fuel. SH



▲ This USAF C-130H 94-6702 (c/n 5382) of the Illinois ANG is pictured departing Prestwick on November 15 for Ramstein. The aircraft stopped at the airport for crew rest and fuel having arrived from Goose Bay. Stuart Haigh



▲ Lockheed EP-3E ARIES II 161410 prepares to depart RAF Mildenhall on November 1st. This ageing ELINT platform belongs to the United States Navy's Fleet Air Reconnaissance Squadron 1 (VQ-1), based at NAS Whitby Island, Washington. Michael Miskin

A round-up of notable aircraft visiting UK airports

ABERDEEN INTERNATIONAL

1/10 G-LMTH ATR 72-600 Loganair f/v.

4/10 OK-BII Beech 400XP; VH-LEF Global 6500; G-NEWG 737-76N 2Excel Aviation.

7/10 D-CCCA Learjet 35A; 99-00102 UC-35A E/1-214th Avn, US Army.

11/10 LX-DAC PC-24.

12/10 OE-LHU Global 6500; 9H-VCW Challenger 350 VistaJet; D-AFAU Global Express.

16/10 54+14 A400M LTG62 German AF; TF-FXA Dash 8-Q402 Icelandair.

17/10 TC-RSE Learjet 45; OH-BSL PC-12NG.

18/10 9H-JPC Legacy 600; 9H-MAS Global 5500.

19/10 SP-EAK Beech 400XP.

22/10 9H-XOA Citation 560XLS VistaJet.

23/10 G-FHJT HondaJet; G-BZMF Rutan Long-EZ; TF-FXE Dash 8-Q402 Icelandair; N95VB Beech 90GTx; ZH857 Merlin HM2 RN.

25/10 G-UZLP A320-251N easyJet f/v.

27/10 N265KC TBM 900; 9H-MFX Praetor 600.

28/10 N404AC Gulfstream G280; RN-04 NH90-NFH 40 Sqn, Belgian defence - Air Component.

BIRMINGHAM AIRPORT

1/10 4K-SW008 747-4R7F Silk Way West Airlines; 9H-WNQ A321-271NX Wizz Air Malta f/v; D-AICP A320-214 Condor f/v Bayern Munich FC team; D-AUSC A340-313 Universal Sky Carrier f/v Bayern Munich fans; TC-NBG A320-251N Pegasus Airlines f/v; D-COIN PC-24; N115LR Gulfstream G450; N37EC Gulfstream IV(SP); OH-BSL & OO-GEE PC-12NGs; S5-CES CitationJet 525B CJ3+.

2/10 N729CA 747-412(BCF) National Airlines; OY-SYC 767-3P5(ER)(BDSF) Maersk Air Cargo; YR-RAM A320 Dan Air f/v, repatriation flight also 3rd; UR-CQD An-26B Vulkan Air; D-CKVI Phenom 300E; F-HLRZ Phenom 100; N450GA Gulfstream G450; N888ZF Gulfstream G650ER; SE-MNN PA-31-310; SE-RLX Hawker 800XP.

3/10 OY-MAC 777-F Maersk Air Cargo; OY-SYA 767-3P5(ER)(BDSF) Maersk Air Cargo; TC-TLI 737-8FZ Tailwind Airlines ops for SunExpress; C-GSUN Global 6500; N279SH Gulfstream G550; OH-ZRH PC-12NG; OY-BBL Phenom 300.

4/10 A6-DDD 777-FFX Etihad Airways f/v; HA-LGO A321-271NX Wizz Air f/v; N756CA 747-412(BCF) National Airlines; YL-CSB CS300 Air Baltic ops for Eurowings; YR-LRE A340-313 Legend Airlines f/v Beirut repatriation flight.

5/10 4K-SW800 & 4K-SW888 747-4R7Fs Silk Way West Airlines; A6-DDE 777-FFX Etihad Airways f/v; TC-LPJ A321-271NX Turkish Airlines f/v; 9H-DFS Falcon 50; HA-SCY Citation 650 VI.

6/10 TC-RDE A321-251NX Pegasus Airlines f/v; YR-DSE A320-232 Dan Air f/v; D-AAHO Legacy 650 VistaJet; D-CAWK Citation 680A Latitude; F-HASJ Citation 510 Mustang; M-AJOR H145; M-OUSY Gulfstream G280; M-OVIE Gulfstream G650; N158PH Challenger 350.

7/10 4K-BCH 747-467F Silk Way West Airlines; 9H-EUP A320-214 Eurowings f/v; A7-BFT 777-F Qatar Airways f/v; B-LNV A330-243F Hong Kong Air Cargo f/v; D-CAWN Citation 680A Latitude; F-HJFP PC-12MG; LX-RHC Challenger 605; OO-MST Citation 510 Mustang; SP-UMA Citation 560XLS.

9/10 A7-BFD 777-FDZ Qatar Airways f/v; 9H-JFX Praetor 600; D-CJMS PC-24; HA-JEX Citation 650 VI; N14717 Gulfstream G450; TC-RSH Challenger 605.

10/10 UK67015 767-38E(ER)(BDSF) My Freighter.

11/10 EI-IKK 737MAX-8200 Ryanair f/v; YL-CSJ A220-300 Air Baltic ops for Swiss International; N906AF MD902.

12/10 9H-WAI A321-271NX Wizz Air Malta; N919CA 747-428(BCF) National Airlines; TC-CPE 737-82R Pegasus Airlines f/v; UK67010 767-318(ER)(BDSF) My Freighter f/v; D-CQAA Learjet 45; F-HREG Falcon 900EX; HB-PRO PA-46-500TP; N112QS Global 5000; OE-GKW Gulfstream G100; OK-DJB Beech 400XP.

13/10 D-CVMS PC-24; HA-JEO Citation 650 III; M-ARKS DA62; OK-PHE Phenom 300.

14/10 4K-BCI 747-467F Silk Way West Airlines; 9H-MSK 747-4H6(BDSF) Mesk Air; B-LNY A330-243F Hong Kong Air Cargo f/v; 9H-648FX Gulfstream G650; D-CARO Citation 680 Sovereign; D-COPS PC-24; OE-HHS Falcon 2000LX.

15/10 TC-NCO A320-261N Pegasus Airlines f/v; F-HMPR CitationJet 525A CJ2; SP-MDD CitationJet 525B CJ3+.

16/10 A6-EOY A380-861 Emirates Gatwick diversion; A7-BFI 777-FDZ Qatar Airways f/v; OY-NPD Metro 23 North Flying; OO-CCJ Citation 510 Mustang.

17/10 N936CA 747-446(BCF) National Airlines; TC-NCH A320-251N Pegasus Airlines f/v; 9H-EDT Challenger 350; 9H-PMN CitationJet 525A CJ2.

18/10 UR-CNN An-12B Cavok Air; F-HANN PC-12/47; N193LA Gulfstream G650ER; WT001 Wedgetail AEW1 RAF returned from painting at Southend.

19/10 LY-FAS A320-214 GetJet Airlines ops for Vueling; TC-NBZ A320-251N Pegasus Airlines f/v; SE-GBL PA-34-200.

20/10 TC-NCH A320-251N Pegasus Airlines f/v; D-CDRF Learjet 35A; D-CHMS PC-24.

21/10 A7-BFY 777-F Qatar Airways f/v; B-LNZ A330-243F Hong Kong Air Cargo f/v; EI-HOJ A320-272N ITA Airways f/v; G-JZDH 737-8AL Jet2 f/v; N235BH Gulfstream G650; VP-CYT Global XRS.

22/10 9H-GTC 737-430 Air Horizont f/v, football charter; EI-HOI A320-272N ITA Airways f/v football charter; EI-RZC 737MAX-8 Neos f/v football charter; LY-NVI A320-232 Avion Express f/v ops for SunExpress; OM-KEX 737-8BK AirExplore football charter; TC-LPN A321-271NX Turkish Airlines f/v; TC-RDY A321-251N Pegasus Airlines f/v; YL-ABL A220-300 Air Baltic ops for Swiss International; C-GSAP Global 6500; CN-TME Learjet 45; D-ATOP Legacy 650E; D-FBOX PC-12NGX.

23/10 D-IBFS Beech 260.

24/10 OM-FEX 737-8Q8 AirExplore; TC-NBI A20N Pegasus Airlines f/v; 103/YT Xingu EAT00.319, French AF; D-AFAB Challenger 604.

25/10 G-WEAH 737MAX-8 Ascend Airways, f/v ops for TUI, Gatwick weather diversion; TC-SMP 737MAX-8 SunExpress f/v; D-ARIE Falcon 7X Luton weather diversion; N650FX Gulfstream G650; OE-GTA Phenom 300.

26/10 LY-NOW A320-232 GetJet Airlines ops for Vueling; D-CAKE Phenom 300.

27/10 TF-ISP 767-319(ER)(BCF) ICE f/v; 3208 KC-130J 32 Sqn, Royal Saudi AF f/v; D-BOSS Praetor 600; D-CMSL PC-24.

28/10 D-CITA Learjet 60; LX-TWO Learjet 45.

29/10 EC-LZD A320-214 Iberojet; UR-CQZ An-26B Vulkan Air.

30/10 C-GZCZ Gulfstream G150; D-CEIS Citation 680 Sovereign.

31/10 D-AIDQ A321-231 Eurowings f/v; G-DBCB A319-131 & G-GATH A320-232 British Airways both f/v and to STS Avn; 2-NITE Challenger 604, M-EADE Challenger 601 & M-SEAO Citation 750X Oxford diversions; N142QS Global 6000 Luton diversion.

BLACKPOOL AIRPORT

1/7 D-CICU Learjet 45.

6/7 D-COPS PC-24.

7/7 I-VICC Partenavia P.68B.

8/7 N240WF AS350B2; PH-ZBZ Beech C90B; PH-ZDZ Beech B200.

10/7 9H-EHB PC-12NG; OO-SAM Robin DR400/140B.

11/7 F-JIPY Nando Groppo Trail; HB-YKQ Storch Mk.IV.

12/7 I-TOPX Beech 400A.

14/7 LX-VGF PC-24; N700TN Beech H-18; OY-CVW Beech 350.

16/7 D-CQAC Learjet 45.

17/7 CS-LUA Citation 680A Latitude NetJets Europe; HB-KKM Cirrus SR22T.

23/7 D-IDBA Premier 1A.

26/7 OO-H20 Ikarus C42; OY-NFA Citation 650 VII.

30/7 2-ZENP Phenom 300.

31/7 OK-PHO Phenom 300.

BRISTOL AIRPORT

1/9 D-AJET Legacy 650E VistaJet; D-IGSY Premier 1A; N884WE Gulfstream G450; S5-CEG CitationJet 525 CJ1.

6/9 F-HGPE Phenom 300.

7/9 LX-PCC PC-24.

8/9 T7-TFC Learjet 31A.

9/9 N146EX Falcon 900EX.

10/9 HA-EMA Phenom 300.

11/9 D-CPSH Phenom 300.

KEY

f/v first visit

n/s night stop

o/s overshoot

12/9 D-COIN PC-24; D-CROG Phenom 300.
13/9 OK-PHO Phenom 300.
16/9 D-AFBS Legacy 650E VistaJet; D-CDIM Learjet 35A.
17/9 A7-CGN Gulfstream G650ER Qatar Executive.
18/9 2-TIJL Phenom 300.
19/9 N261PW Gulfstream G550.
22/9 C-FYLD Astra SPX; D-BAHB Falcon 2000LX; SE-RNR Challenger 350.
23/9 N65PX Challenger 605.
24/9 278 AW139 301 Sqn, Irish Air Corps.
25/9 OE-GBD Gulfstream G100.
26/9 D-CDOC Learjet 45.
27/9 A7-CGE Gulfstream G650ER Qatar Executive; D-FZZZ PC-12NGX.
28/7 A7-CGM Gulfstream G650ER Qatar Executive; F-GGVG Merlin 3 Airless Air Espace; TC-SMK 737MAX-8 SunExpress.
30/9 D-AEOT Legacy 600 VistaJet; D-CAGA Phenom 300.

EAST MIDLANDS AIRPORT

1/10 G-LCYP E190SR BA Cityflyer for painting.
2/10 N1RP Gulfstream G550.
3/10 D-CETB Hawker 750; OE-GMJ Citation 560XLS+.
4/10 G-NSEY E195LR ex-Aurigny, for painting for Lumiwings; N529CK Global 6000.
5/10 PH-TXA Citation 510 Mustang.
6/10 D-CPAV Phenom 300; G-UZLR A320-251N easyJet.
7/10 D-CAAE Learjet 45; OH-EPG Pilatus PC-12NGX.
8/10 ES-PVP Learjet 60.
9/10 PH-DWS ERJ135LR Air Charters Europe; S5-BBG Citation 550 Citation II.
10/10 G-LCYR ERJ-190SR BA Cityflyer for painting; EJ-REVA Hawker 800XP; N237GA Gulfstream G550.
11/10 D-COIN PC-24; N599TR Gulfstream G550.
13/10 D-CPTN PC-24; LX-JFA PC-12NG; TC-RSC Learjet 45.
14/10 OE-GKW Gulfstream G100; I-JENI E190LR for painting for Air Dolomiti, ex-Lufthansa D-AECG; D-CEXP Learjet 35A.
15/10 D-CHMS PC-24.
17/10 F-HMXL Citation 550 II; D-AFAD Challenger 604.
18/10 A6-GGP 747-412F Dubai Air Wing; 330003 CC-330 437 Sqn, RCAF; OE-IZR A321-231 ex-Avianca for painting; SP-UMA Citation 560XLS; D-CJMS PC-24.
19/109 9H-IRL Citation 560XL.
20/10 OK-OSK Citation 680 Sovereign.
21/10 N451PA 747-46NF Atlas Air; OY-DBS Falcon 8X.
23/10 M-RISE 757-23N Talos Aviation; OO-DOC Learjet 45.
25/10 SE-RSS E195LR SAS for painting; D-CDOC & LX-TWO Learjet 45s.
26/10 D-CPTN PC-24.
27/10 F-HBNA A320-214 Amelia International for painting.
28/10 F-HJPH Citation 510 Mustang; CS-DGW CitationJet 525B CJ3.
29/10 OK-PHE Phenom 300.
30/10 9H-EDT Challenger 350.
31/10 HA-SCY Citation 650 Citation VI; LX-VGF PC-24.

GATWICK AIRPORT

1/9 9V-SJA A350-941 Singapore Airlines; N578JG Challenger 604.
2/9 EC-NTU A320-214(SL) Volotea; HB-JVA E195AR Helvetic Airways ops for Swiss; SP-EXA 737MAX-8 Enter Air; TC-SRB 737-8AL SunExpress.
3/9 N540LF Gulfstream G650ER.
4/9 EI-IJD 737MAX-8200 Ryanair; I-ADVA A220-100 ITA Airways London City diversion.
6/9 C-GOKH A321-271NX Air Transat; EI-HLC A220-100 ITA Airways LCY Diversion; EI-IJI, EI-IJW & EI-IKA 737MAX-8200s Ryanair; I-ADVC A220-100 ITA Airways LCY Diversion; LY-WSA A321-211 GetJet Airlines ops for Vueling; 9V-SMI A350-941 Singapore Airlines; D-CMSL PC-24.
8/9 9H-QBK 737-8AS Ryanair.
10/9 B-1243 787-9 China Southern Airlines; F-HOSP BAe125-1000B.
11/9 EI-IKE 737MAX-8200 Ryanair.
14/9 9H-MAYA Dash 8-Q402 SkyAlps.
15/9 EI-IJA 737MAX-8200 Ryanair; 9H-VVM 737MAX-8200 Ryanair.
18/9 9H-QCN 737-800 Ryanair.
20/9 N14001 787-10 United Airlines medical diversion; A7-CGG Gulfstream G650ER.
21/9 EI-DSW A320-216 ITA Airways; 9H-VIT Global 7500 VistaJet Malta.
22/9 TC-LPJ A321-271NX Turkish Airlines.
24/9 LZ-EAH A320-214 Electra Airways ops for Air Arabia Maroc; 9H-MRT Challenger 350.
25/9 EI-HON A320-272N ITA Airways; 9H-WNQ A321-271NX Wizz Air Malta.
26/9 HB-JVZ E195AR Helvetic Airways ops for Swiss.
27/9 G-RNDX Praetor 600.
28/9 EC-NZR 737-8AS Air Europa Express; EC-OFV A320-214 Vueling.
30/9 OY-SKK Falcon 8X.
1/10 9H-QDF 737-800 Ryanair; 9V-SMT A350-941 Singapore Airlines; 9H-KDR Global Express.
2/10 EC-LZD A320-214 Iberojet.
3/10 EI-IKM 737MAX-8200 Ryanair; UK78702 787-8 Uzbekistan Airlines; YL-ABU A220-300 Air Baltic; 9H-QAM 737-800 & 9H-QBH 737-8AS Ryanair; OY-NFA Citation 650 VII.
4/10 G-TTNY A320-251N British Airways.
5/10 9H-QDH 737-800 Ryanair; OK-STS Phenom 300.
7/10 EI-IKI 737MAX-8200 Ryanair; G-ZBKJ 787-9 British Airways; 9H-QDY 737-800 Ryanair.
8/10 UK67003 767-33PER Uzbekistan Airlines.
10/10 EI-IKK & 9H-VUH 737MAX-8200s Ryanair.
13/10 9H-NEG A320-251N KM Malta Airlines.
14/10 HB-JJK A320-214 Edelweiss Air ops for Swiss International; HZ-AK43 777-300ER Saudia; 9V-SMC A350-941 Singapore Airlines; OK-CAA Citation 560XL.
15/10 TC-LPN A320-271NX Turkish Airlines; 9H-QEJ 737-800 Ryanair; 9V-SJG A350-941 Singapore airlines.
16/10 G-UZLZ A320-251N easyJet on delivery from Toulouse.
17/10 9H-QAA 737-800 Ryanair; OO-PCA PC-12NGX.
18/10 D-AUSC A340-313 Universal Sky Carrier; EC-OFH A320-214 Vueling; TC-JJF 777-3F2(ER) Turkish Airlines; 9V-SMJ A350-941 Singapore Airlines.
19/10 A7-CGF Gulfstream G650ER Qatar Executive.
20/10 9H-WNS A320-271NX Wizz Air Malta.
21/10 9H-QER 737-8AS Ryanair.
22/10 9H-QFD 737-8AS Ryanair; YL-ABV A220-300 Air Baltic.
23/10 EC-OGE A320-232 Vueling.
25/10 G-TUMZ 737MAX-8 TUI Airways; G-UZMK A321-251NX easyJet on delivery from Finkenwerder; I-JENH E190LR Air Dolomiti London City diversion; 9H-QEQ 737-8AS Ryanair; 9H-IBI Global 7500 Luton diversion.
27/10 9H-VCT Challenger 350.
28/10 HB-JJL A320-214 Edelweiss Air ops for Swiss; TC-LCI 737MAX-8 Turkish Airlines; 9H-QBB 737-8AS Ryanair.
29/10 9H-QCW 737-8AS Ryanair.
31/10 G-JZHH 737-85P Jet2.

GLASGOW PRESTWICK AIRPORT

Storm / Chevron summary -.
G-WUKN A321-271NX Wizz Air UK in hangar
N371BC BBJ2 remains stored, re-registered LY-CER for KlasJet
9H-GLOBL A380-841 Global titles, still in China Southern colours, stored north side
130601, 130604, 130614 CC-130JS RCAF now based with ATF Prestwick

1/10 5Y-RIS Beech 350ER; 07-7169 C-17A 436th/512nd AW, USAF dep 8th; 61-0318 KC-135R 106th ARS, AL ANG n/s; 2/10 F-OGMG Tecnam P2012; G-HODL 737-82R Ascend Airways training; 07-7184 C-17A 437th/315th AW, USAF also 27th.

2/10 HB-FQK PC-12NGX c/n 2409 on delivery; CS-PHL Phenom 300 NetJets Europe; OO-PCK PC-12/47E; N778CH Global 5500; A41-210 C-17A 36 Sqn, RAAF dep 7th; KAF343 C-17A 41 Sqn, Kuwait AF dep 5th.

3/10 OO-AIE Falcon 7X also 6th; G-EUUD A320-232 British Airways training also 4th; 68-01609 C-130E 222 Filo, Turkish AF n/s also 8th-10th; F-HAHA Citation 510 Mustang; LX-PCH PC-24; C-GPGD Challenger 604; D-AHER Falcon 900EX.

4/10 9H-GLOBL A380-842 Global departed to Dresden after 5 months storage; 9H-MIR Challenger 604 HiFly crew for A380; 08-8601 C-130J-30 37th AS, 86th AW, USAF n/s; A7-MAE C-17A Qatar Emiri AF n/s also 10th n/s.

5/10 A41-213 C-17A 36 Sqn, RAAF also 18th; CS-PHM Phenom 300 NetJets Europe; G-CMJM ATR 72-600 Aer Lingus Regional training; LX-PCG PC-24; 9H-VJD Global 6000 VistaJet; 07-7180 C-17A 437th/315th AW, USAF also 26th, 27th. 28th. 29th & 30th; 164598/JW C-130T-30 US Navy n/s; 165829 C-40A VR-58, USN dep 7th.

6/10 05-5146/HH C-17A 535th AS, 15th WG, USAF USAF; OO-PCK PC-12/47E; D-IMOI CitationJet 525 CJ1.

7/10 07-7185 C-17A 437th/315th AW, USAF.

8/10 99-0060 C-17A 62nd/446th AW, USAF also 21st-28th; 10-0217 C-17A 62nd/446th AW, USAF n/s; OO-MAP PC-24; UR-CQE An-26B Vulkan Air.

9/10 G-TUMW 737MAX-8 TUI to Storm hangar out 11th; 165830 C-40A VR-59, USN; G-XITE Bell 505 Jet Ranger X; N778CH Global 5500 dep 11th; 07-7178 C-17A 305th/514th AMW, USAF.

10/10 A7-MAE C17 Qatar Emiri AF out 11th; 08-8202 C-17A 62nd/446th AW, USAF dep 13th; 00-0180 C-17A 758th AS, AFRC.

11/10 N960RJ TBM 960 c/n 1561 on delivery; D-CUNI Learjet 45.

12/10 N378AX 767-33A(ER) Omni Air International also 13th; 09-9209 C-17A 62nd/446th AW, USAF n/s; A41-210 C-17A 36 Sqn, RAAF; VP-CVD 787-9 Air Prema to Storm hangar; N36NE 767-323(ER) Omni Air International in New England Patriots colours; 15004 CC-150T 437 Sqn, RCAF n/s also 14th n/s &16th n/s.

13/10 N378AX 767-33A(ER) & N828AX 777-2U8(ER) Omni Air International; OY-AWH PC-12/47E also 19th; G-FFRA Falcon 20DC & G-FRAF Falcon 20E Draken International; 97-01944 C-37A USAPAT; G-CMFI ATR 72-600 Eastern Airways also 15th; A97-468 C-130J-30 37 Sqn, RAAF n/s also 15th-17th.

14/10 N486AX 767-36N(ER) Omni Air International; G-DRTZ 737-8ASJet 2 training; G-FRAK & G-FRAI Falcon 20DCs Draken International; HB-FQL PC12 PCH c/n 2410 on delivery; 162161/42 C-2A VRC-40, VRC-40 USNavy still present 1/11.

15/10 HB-FZZ PC-12/47E; 166825/AB-406 F/A18E VFA-136, USN diverted from USS Harry S. Truman dep 18th; G-CMFI ATR 72-600 Eastern Airways; CT-04 A400M 15 Wing, Belgian Defence - Air Component n/s. 16th 19-5942 C-130J 165th AS, Ky ANG; 91-1652 C-130H 180th AS, Mo ANG n/s. 17th 95-0102 C-17A 437th/315th AW, USAF; 165379/RU C-130T VR-55, USN; 07-7171 C-17A 305th/514th AMW, USAF n/s. 18th 01-0076 C37A USAF no serial carried; G-TTNX A320N British Airways-251 to Storm hangar; A97-441 C-130J-30 37 Sqn, RAAF n/s; 08-8203 C-17A 62nd/446th AW, USAF n/s.

19/10 09-9209 C-17A 62nd/446th AW, USAF; 93-0602 C-17A 156th AS, NC ANG; G-CMMK ATR 72-600 Aer Lingus Regional training; 08-8193 C-17A 62nd/446th AW, USAF.

20/10 166320/AB-613 MH-60S HSC-11, USN from and to USS Harry S Truman.

21/10 99-0060 C-17A 62nd/446th AW, USAF dep 28th; 93-0602 C-17A 156th AS, NC ANG; 163311/RU C-130T VR-55, USN also 26th; G-WUKN A321-271NX Wizz Air UK departed after months storage; HB-FQM PC-12NGX c/n 2411 on delivery; 04-4136 C-17A 305th/514th AMW, USAF n/s.

22/10 N413AF PC-12NGX c/n 2413 on delivery; UR-CBG An-12BK Cavok Air.

23/10 N936CA 747-446(BCF) National Airlines; 03-3127 C-17A 62nd/446th AW, USAF n/s; 08-8203 C-17A 62nd/446th AW, USAF n/s; HB-FQR PC-12NGX c/n 2416 on delivery; 910502 C-26D AOD Sigonella n/s; 90-1791 C-130H 180th AS, Mo ANG n/s.

24/10 96-6043 CN235 AFSOC, dep 27th no serial worn; 164994/CW C-130T VR-54, USN also 26th & 30th; T-055 A330-MRTT MMU training.

25/10 83-0499 C-12D USE Budapest; N964DS TBM 960 c/n 1564 on delivery; 87-0031 C-5M 337th AS, AFRC USAF, Mildenhall fog diversion; G-FRAD Falcon 20E Draken International; 06-6161 C-17A 60th/349th AMW, USAF also 27th.

27/10 08-8195 C17 62nd/446th AW, USAF n/s; 99-0169 C17 437th/315th AW, USAF n/s; 162164/57 C-2A VRC-40, USN dep 31st; T7-FEE Gulfstream G450.

28/10 HB-FQS PC-12NGX c/n 2417 on delivery; N900FZ TBM 900; KAF342 C-17A 41 Sqn, Kuwait AF n/s; 06-6162 C-17A 60th/349th AMW, USAF; 15001 CC-150 437 Sqn, RCAF n/s.

29/10 59-1461 & 61-0309 KC-135Rs 126th ARS, Wi ANG; 09-9209 C-17A 62nd/446th AW, USAF n/s; 01-0076 C-37A 76th AS, 86th AW, USAF no serial carried; EI-HHD DA42; N952CA 747-428(BCF) National Airlines; D-CITA Learjet 60.

30/10 HB-FQP PC-12NGX PCH c/n 2414 on delivery.

31/10 04-4129 C-17A 62nd/446th AW, USAF dep 2/11; 02 & 03 C-17As SAC Heavy Airlift Wing both dep 2/11; N18CZ Global 6000.

HEATHROW AIRPORT

27/10 PH-AXA A321-252NX KLM.

28/10 9H-EUO A320-214 Eurowings; TC-LPI A321-271NX Turkish Airlines.

29/10 9H-NEG A320-251N KM Malta Airlines.

30/10 JA02WJ A350-1041 Japan Airlines.

2/11 EC-OFH A320-216 Vueling Airlines.

3/11 D-AUSZ A340-642 Universal Sky Carrier diversion; JA04WJ A350-1041 Japan Airlines; TC-LPK A321-271NX Turkish Airlines.

5/11 F-HPNM A220-300 Air France; JA05WJ A350-1041 Japan Airlines.

6/11 TC-MGA BBJ1 Mavi Gok Avn.

7/11 A6-EFV 777-F Emirates.

8/11 SE-RSN E195LR SAS Link.

9/11 A7-BTB 777-F Qatar Airways.

10/11 PH-AXB A321-252NX KLM.

11/11 F-HPNN A220-300 Air France; TC-LPL A321-271NX Turkish Airlines.

14/11 VT-JRB A350-941 Air India.

16/11 F-HPNO A220-300 Air France.

17/11 JA01WJ A350-1041 Japan Airlines; N431DX A330-941N Delta Airlines.

19/11 ET-BAW A350-1041 Ethiopian Airlines; N779LG Challenger 604.

20/11 LZ-LIS A220-100 Bulgaria Air.

21/11 JA839A 787-9 All Nippon Airways Paris-CDG diversion.

22/11 OE-LJS Challenger 604.

24/11 SP-LVQ 737MAX-8 LOT.

LEEDS BRADFORD AIRPORT

1/9 TC-RSC Learjet 45; OY-JBJ Hawker 800XP; LX-KHH PC-24; 9H-MGM Citation 560XL.

2/9 LV-KLH Gulfstream V.

3/9 ES-PVP Learjet 60; OY-VPD Vulcanair P68 Observer.

4/9 F-HFTV Beech B200.

5/9 OY-JPJ Citation 650 III.

6/9 TC-SMF 737MAX-8 SunExpress.

8/9 N245QS Challenger 650; OE-GIE & SP-MDD CitationJet 525B CJ3s; TC-SPZ 737-8FZ SunExpress.

9/9 TC-FBV A320-214 Freebird Airlines.

10/9 9H-WIT PC-12NG; 9H-PWBP A320-232 Wizz Air Malta.

11/9 281 PC-12NG 104 Sqn, Irish Air Corps; TC-SRB 737-8AL SunExpress.

12/9 SP-DOM Learjet 60XR.

13/9 OO-PCI PC-12NG.

14/9 9H-99FX Global XRS.

15/9 N154QS Global 6000; C-FTML Challenger 650.

17/9 C-GHSW Global 7500.

18/9 M-SKTO H160B.

20/9 OE-GLB PC-24; TC-RSD Learjet 45; TC-SEZ 737-8EZ SunExpress.

21/9 HA-LGP A321-271NX Wizz Air.

22/9 D-ATMJ Challenger 604; 263, 266, 267 & 269 PC-9Ms FTS, Irish Air Corps.

24/9 CS-GLK Global 6500 NetJets Europe.

25/9 N1RH Gulfstream G650ER.

27/9 CS-IMP Citation 680 Sovereign.

29/9 SE-RNS Challenger 350; SE-RMA Challenger 300; N283CE Gulfstream G230.

30/9 N280PK Gulfstream V.

LONDON LUTON AIRPORT

1/9 OY-BBL Phenom 300; D-IINO Avanti Evo; TC-MYB A321-231(P2F) MNG Cargo.

2/9 VP-CBP Gulfstream G650ER.

3/9 OE-IKG Gulfstream G550.

4/9 N70LX Falcon 2000LX; LV-KLH Gulfstream V.

6/9 TC-ARC Global 5000.

7/9 N539XJ Challenger 300.

9/9 N1066W Gulfstream G400.

10/9 N489FX Gulfstream G450; TC-JOA A300-303 Turkish A/L Istanbul – Baku (F1 Charter); N830QS Citation 700 Longitude.

11/9 OE-EMS PC-12NG; LV-KLB Gulfstream G550; B-606E Gulfstream G650ER.

12/9 D-IAWE Cessna 425; N617BW Challenger 604; N289K Gulfstream G280; SX-DHA Challenger 605.

13/9 OE-GLB PC-24.

14/9 LY-KUA 737-83N GetJet Airlines ops for Wizz Air.

15/9 N696JS Global 7500; N662FX Gulfstream G650ER; D-IZRH CitationJet 525 CJ1; N622PF Gulfstream G600.

16/9 VT-SRH Global 6500; D-ABKJ 737-86J TUIfly for maintenance.

18/9 T7-SAHIN Challenger 604; N487FX Gulfstream G450.

19/9 N711TQ Falcon 900LX; VP-CTL Gulfstream G650ER.

20/9 N643GD Gulfstream G600; F-HJJL PC-12NG.

22/9 N889LV Gulfstream G650ER.

23/9 N54QW Gulfstream G650ER; SE-RFZ 787-9 TUIfly Nordic fpr maintenence; N806DL Gulfstream G550.

24/9 N531GD Gulfstream G500; TC-EMR Gulfstream IVSP.

25/9 OY-FSE Saab 2000 Frost Air; N1RH Gulfstream G650ER; A7-CHB Gulfstream G700.

26/9 N257QS Challenger 650; T7-AVNTG Gulfstream G700; 4K-AZ143 A320 Airbus-271N Azerbaijan Airlines.

27/9 N631CD Gulfstream G650ER; OY-BBO Praetor 600; C-FSNY Legacy 500.

28/9 N720AB Falcon 7X; N250JC Falcon 900EX.

29/9 N611PL Gulfstream G650E; N892CH Gulfstream G550.

1/10 LY-BGS 737-3L9 KlasJet.

2/10 N415FT Gulfstream G650; VT-JSJ Global 7500.

3/10 N501FX Challenger 350; N457FX Gulfstream 450; 273 Falcon 7X Hellenic Air Force.

4/10 N185QS Global 7500 Netjets; LX-VAM Falcon 7X.

5/10 N827QS Citation 700 Longitude; T7-F8X Falcon 8X.

6/10 SE-RNS Challenger 350; N19VV Falcon 8X.

7/10 D-AMAA 737MAX-8 TUIfly for maintenance; OO-TMZ 737MAX-8 TUI Airlines Belgium – maintenance.

8/10 N312P Gulfstream 600.

9/10 T7-XAN Global 6000; N361N Falcon 7X; N501QC Gulfstream G550.

10/10 VT-ZTT Challenger 650.

11/10 C-FSBR Praetor 500; N529CK Global 6000; I-LRSL PC-24; N84YU Global XRS.

12/10 N929WG Gulfstream G280.

13/10 N468GC Global 5000; XA-AIK Gulfstream G280; N188QS Global 7500 Netjets.

14/10 UP-EM022 Praetor 600. N793CP Gulfstream G600.

16/10 N750HL Gulfstream G650ER; N279SH Gulfstream G550.

17/10 N770AW Gulfstream G550; N181PR Gufstream IVSP; A7-CHD Gulfstream G700; N369LL Challenger 350.

18/10 N615KG Gulfstream G650ER; TC-REG Falcon 2000; N655FX Gulfstream G650ER; N77VA HondaJet.

19/10 HS-SKS Gulfstream G550.

20/10 PS-SRN Gulfstream G550; EI-DVE A320-214 Aer Lingus, Dublin diversion.

21/10 PH-TFN 737MAX-8 TUI Netherlands for maintenance. 9H-DINA Falcon 6X; N1108M Gulfstream G650; N405PC Gulfstream G500; OE-LOW Legacy 600.

22/10 D-FBOX PC-12NGX; SP-GMS Praetor 600; N541GD Gulfstream G500; OK-PRF Praetor 600; LX-AMB Challenger 605;

23/10 SP-AIN Citation 560XL.

24/10 N450JC Gulfstream G450.

25/10 N193LA Gulfstream G650ER.

26/10 T7-MCDAN Challenger 604.

27/10 N457AY Challenger 350.

28/10 N586G Gulfstream G500.

29/10 N497RB Beech 300LW; VP-CBB Gulfstream G650; T7-SMF Global Express Farnborough diversion.

30/10 N103WG Gulfstream G650ER; OE-LSC Gulfstream G450; HB-JFX Global 6000; LX-VAM Falcon 7X.

31/10 LX-VGF PC-24; N203JE Global 7500.

LONDON SOUTHEND AIRPORT

1/10 OE-IVW A320-214(SL) easyJet Europe f/v; 2-MSTG Citation 510 Mustang; WT001 Wedgetail AEW1 arrived from Birmingham in primer, to Air Livery for painting, dep to Birmingham 18th; CS-TFR Learjet 45; N9012S Cessna 182T arrived from Wick on ferry flight, n/s, dep to Bydgoszcz; HB-JZZ A320-214 easyJet Switzerland f/v.

2/10 LN-ITA Cirrus SR20.

3/10 A7-HMD EC155.

6/10 T7-SLXP PC-12/47.

8/10 9H-AMF Global 6000.

9/10 D-iAWG Cessna 425.

10/10 D-CGPR Learjet 55; M-ARVA Global 6000.

11/10 OY-HDD Bell 206B.

12/10 D-CDRF Learjet 35A.

13/10 OO-MMT Citation 560XLS; N726AF Global Express.

14/10 9H-ALK Cirrus SR22T.

15/10 9H-VJU Global 6000 VistaJet.

17/10 OY-VPA Vulcanair P.68C BioFlite.

18/10 D-CHZF Citation 550 Bravo.

20/10 OK-RAH Beech 400XP.

22/10 N148B Gulfstream G650; N180FB Avanti II.

23/10 D-CCCB Learjet 35A.

25/10 OO-FAE Falcon 7XBelgian Defence - Air Component.

26/10 T7-MCDAN Challenger 604.

27/10 PH-ZDZ Beech B200.

28/10 OE-LST A320-251N easyJet Europe f/v.

30/10 OK-BEE Beech 400A.

31/10 OE-IJS A320-214(SL) easyJet Europe f/v.

MANCHESTER AIRPORT

2/10 I-NEOZ 737-86N Neos Football charter for Bologna vs Liverpool.

4/10 TC-LGV A350-941 Turkish Airlines f/v.

5/10 CS-LUB Citation 680A Latitude NetJets Europe f/v; 9H-EART Falcon 2000 f/v.

6/10 N489FX Gulfstream G450 f/v; 9H-EMC Phenom 300E f/v; 9H-III Global Express f/v; YR-TRC Challenger 300 f/v.

7/10 SE-RUR A320-251N SAS f/v.

9/10 EI-IKI 737MAX-8200 Ryanair f/v.

10/10 9H-CXD 737-8GP Corendon Europe f/v.

11/10 SE-RTP 737MAX-8 Norwegian f/v; G-SUNO A321-251NX Jet2.com delivery flight from Finkenwerder.

12/10 SE-RST E195LR SAS Link f/v.

13/10 G-JZDG 737-8H6 Jet2.com f/v.

14/10 LZ-FSH A321-211 Fly2Sky f/v, - op the inaugural Arkia 2 x per week Tel Aviv - Manchester service.

15/10 LX-EOS Falcon 900LX f/v.

16/10 OE-ISN Gulfstream G550 f/v.

18/10 TC-LPN A321-271NX Turkish Airlines f/v; SE-RUP A320-251N SAS f/v; UR-SQE 737-75C SkyUp Airlines f/v, op for Arkia; C-GOKH A321-271NX Air Transat f/v; 5N-BVE 777-21H(ER) Air Peace f/v, Gatwick weather diversion.

20/10 EI-NSC A320-251N Aer Lingus f/v, EC-NUD A321-251NX Iberia f/v & LX-LGQ 737-7C9 Luxair Dublin weather diversions; OK-PCF PC-12NG; A6-EVB A380-841 Emirates Birmingham weather diversion; G-LMTH ATR72-600 Loganair f/v.

21/10 G-JZDH 737-8AL Jet2.com f/v.

22/10 SP-LIB E175STD LOT, OK-TSS 737-8Q8 Smartwings f/v & OK-TVX 737-8Z9 Smartwings all Sparta Prague charters; OY-CHL Challenger 3500 f/v; EC-OGE A320-232 Vueling f/v.

23/10 OK-SWC 737MAX-8 Smartwings f/v, & OK-TVH 737-8Q8 Smartwings Sparta Prague charters; OK-TNT Pilatus PC-12NG f/v; TC-SMP 737MAX-8 Sun Express f/v.

24/10 OK-SWD 737MAX-8 Smartwings f/v & SP-LIA E175STD LOT both Sparta Prague charters.

25/10 SE-RZE A320-251N SAS f/v; TC-SOD 737-800 Sun Express Leeds Bradford weather diversion; N190JA Global Express XRS f/v; N725EL Cirrus SR22T f/v.

26/10 EI-IKH 737MAX-8200 Ryanair f/v. G-UZMD A321-251NX(SL) Easyjet f/v.

27/10 PH-AXA A321-252NX(SL) KLM f/v; EI-NSF A320-251N(SL) Aer Lingus f/v; PH-EBR Falcon 900 f/v.

28/10 9H-NSV Global Express f/v.

29/10 2-REDY TBM 940 f/v.

31/10 EC-OCH A321-271NX Iberia Express f/v; UR-SQF 737-8H6 SkyUp f/v, op for Arkia); N792MF B777-2DZLR Mammoth Freighters f/v, arrived for freight conversion at STS.

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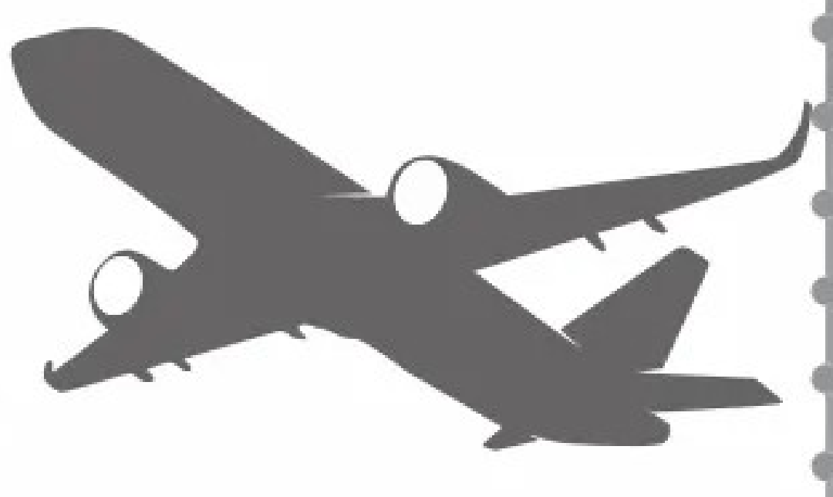

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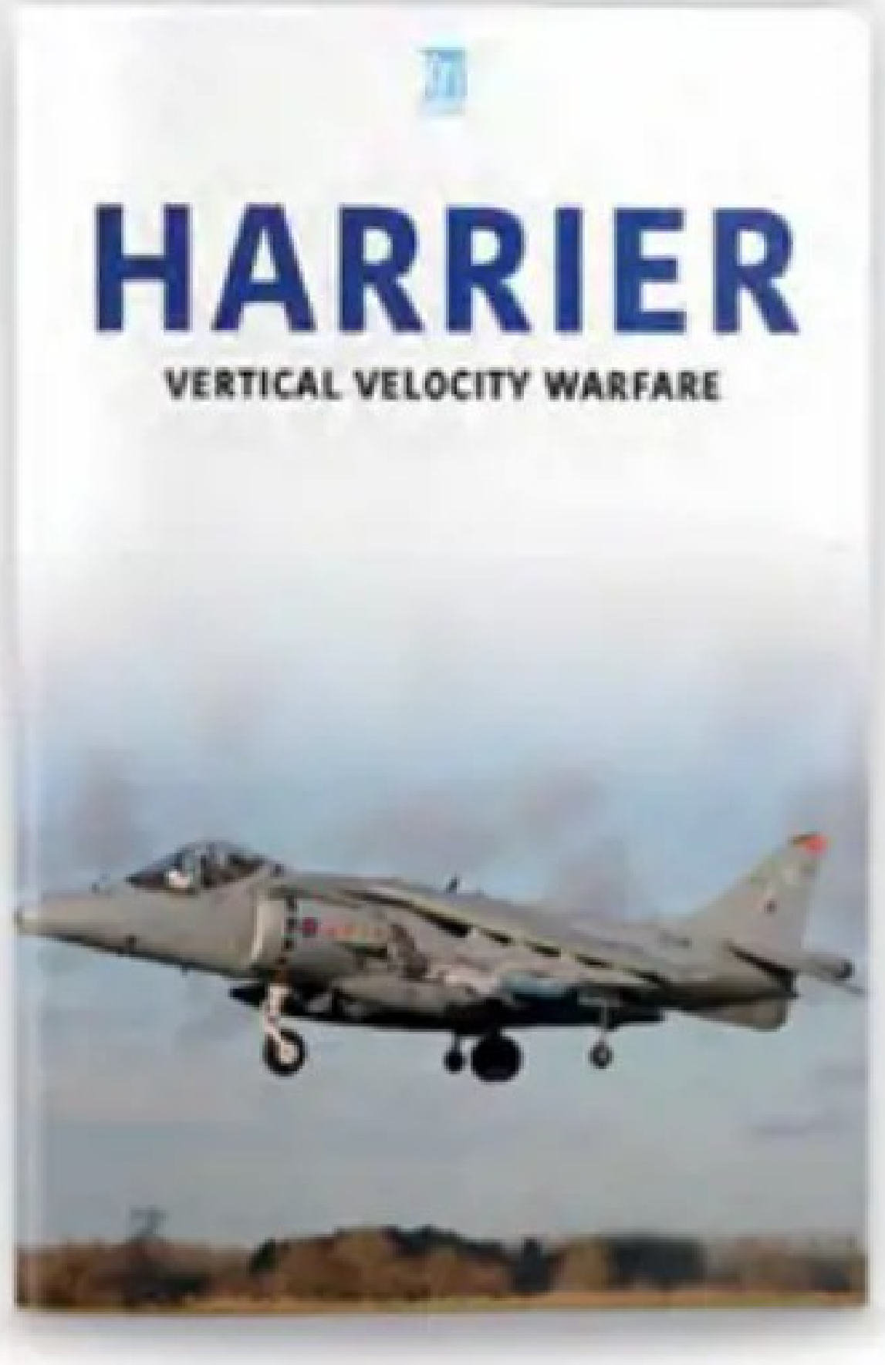

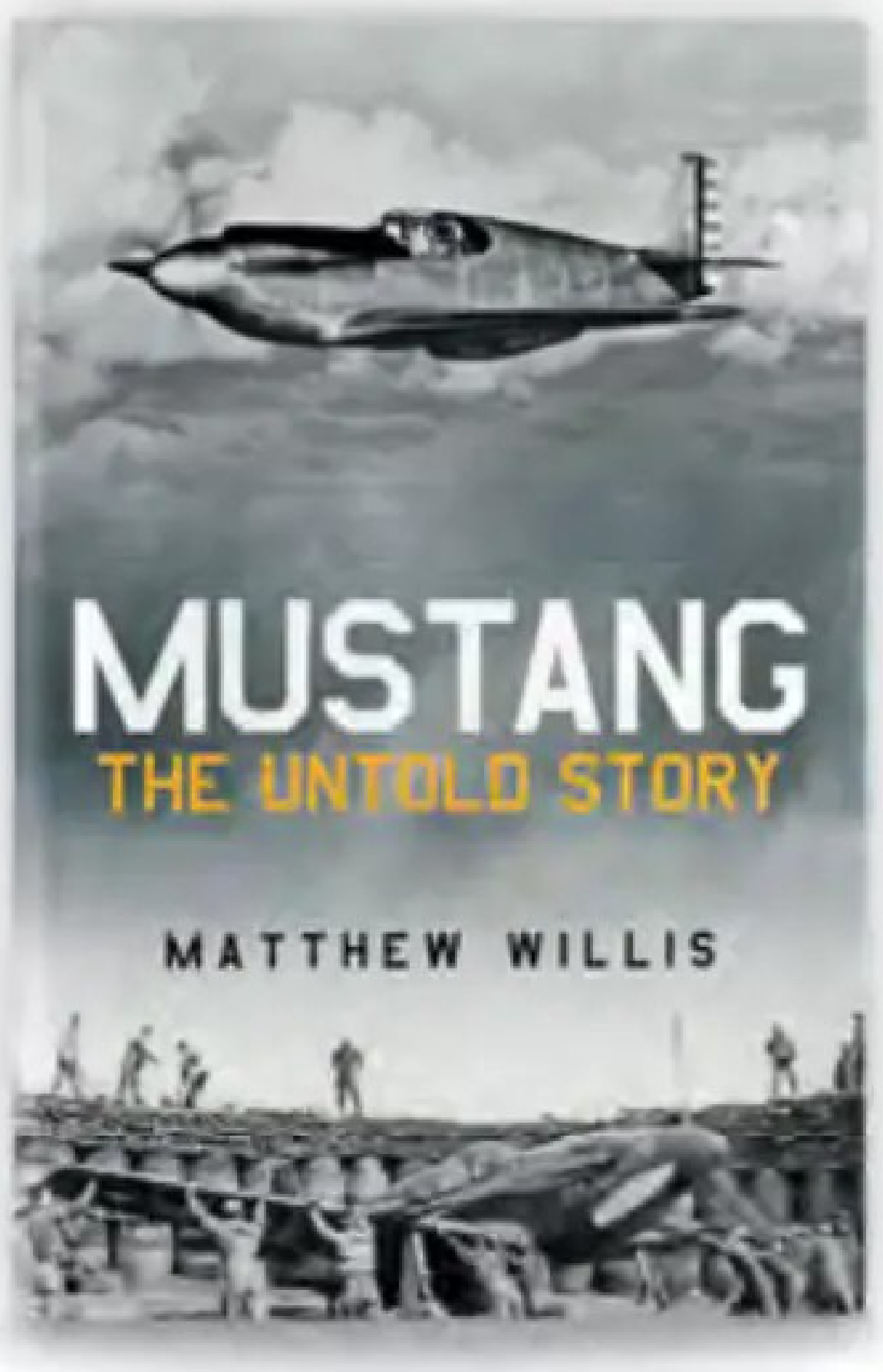

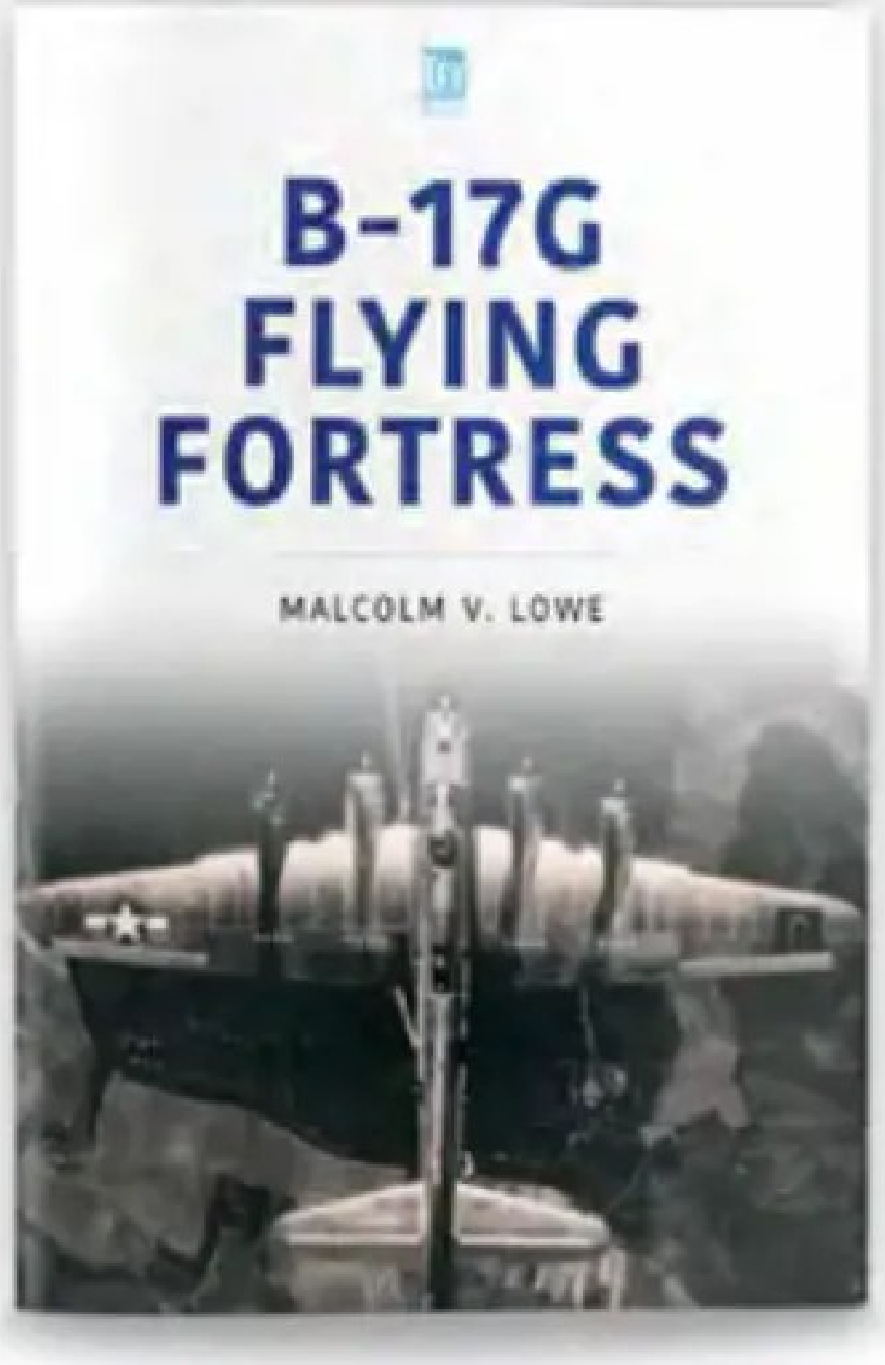

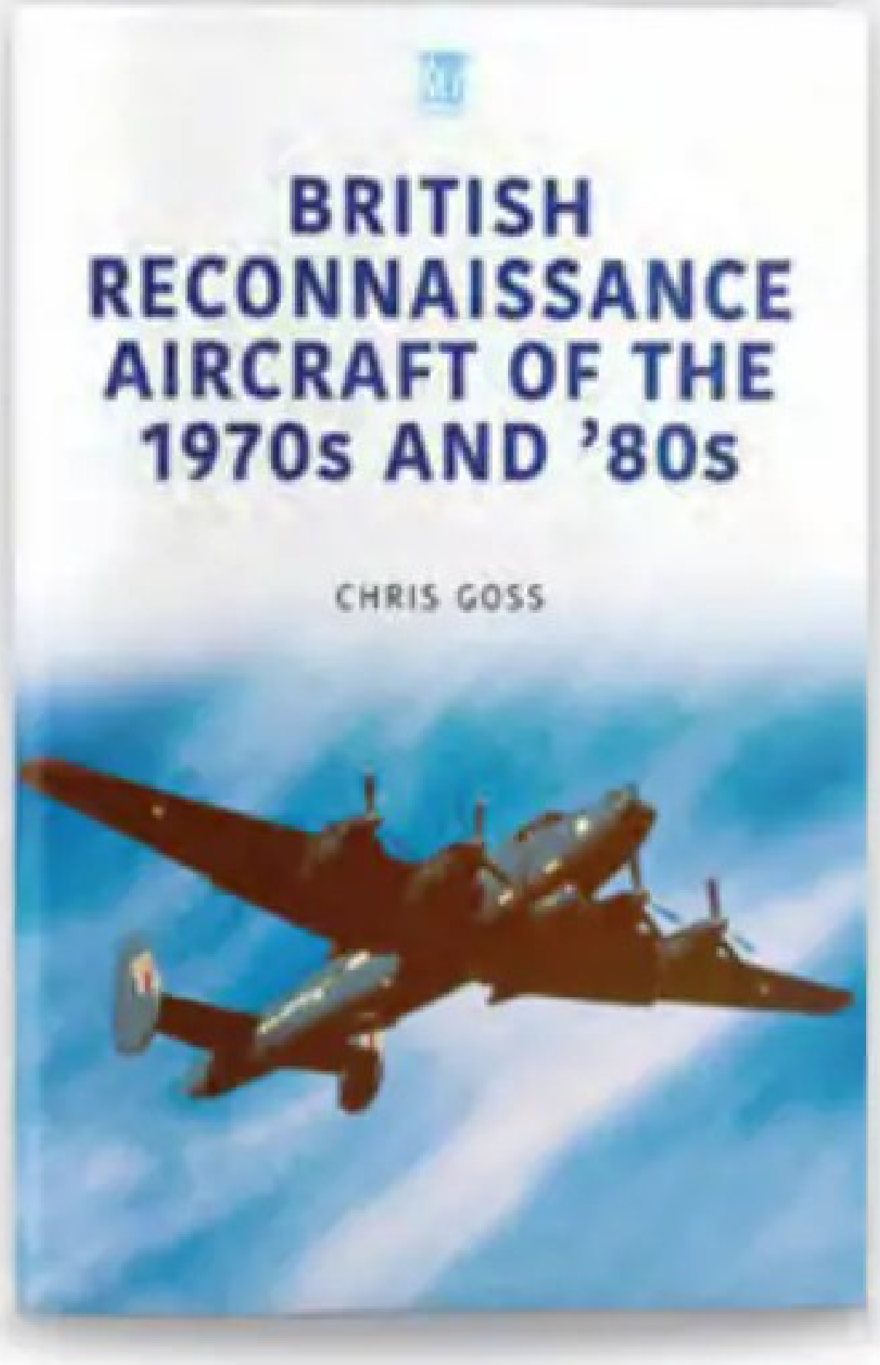

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Jet2's A321, G-SUNO, landing at Hamburg Airport on a test flight Dirk Grothe

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The latest changes on the UK, Irish, Isle of Man and Guernsey registers

RESTORATIONS

REG'N	MODE(S)	TYPE	C/N	OWNER
G-BCUH	401BA8	Reims Cessna F150M	1195	IS Christou, Trustee of G-BCUH Group, Elstree, Hertfordshire
G-BXIX	408E08	VPM M-16 Tandem Trainer (built by D Beevers)	PFA G/12-1292	PP Wilmott, (Waltham, Lincolnshire)
G-CBUO	403906	Cameron O-90	3353	GB Davies, (Thorney, Cambridgeshire)
G-CLLD	407996	Robin DR400/400RP Remorquer 212	1317	CJO Fox, Little Staughton, Cambridgeshire
G-TEKW	4081E4	Tekever AR5 Evolution Mk.2.3	522	Tekever Ltd, (Chilworth, Hampshire)
2-TWCB	TBA	Boeing 737-8K9	34400	TWC Aviation Capital Ltd, (stored at Chennai International, India)

NEW REGISTRATIONS

REG'N	MODE(S)	TYPE	C/N	OWNER
G-CMVK	40813A	Aeropro EuroFOX 2K (assembled by Ascent Industries Ltd)	70424	RT Pearson, Athey's Moor, Longframlington, Northumberland
G-CMVX	4081B3	Flylight Foxcub	DA295	S Polley, (Wickhambhook, Cambridgeshire)
G-CMWR	4081E7	Airbus EC130 T2	9640	Airbus Helicopters, Marseille-Provence, France
G-CMXB	40816A	Airbus MBB-BK 117 D3	21228	Airbus Helicopters UK Ltd, Oxford, Oxfordshire (for RAF as Jupiter HC2)
G-CMXH	4081F1	Westland SA341B Gazelle AH.Mk.1	1817	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXJ	4081F2	Westland SA341B Gazelle AH.Mk.1	1950	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXK	4081F3	Westland SA341B Gazelle AH.Mk.1	1982	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXL	4081F4	Westland SA341B Gazelle AH.Mk.1	2003	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXM	4081F5	Westland SA341B Gazelle AH.Mk.1	1009	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXN	4081F6	Westland SA341B Gazelle AH.Mk.1	1613	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXO	4081F7	Westland SA341B Gazelle AH.Mk.1	1673	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-CMXP	4081F8	Westland SA341B Gazelle AH.Mk.1	1967	Falcon Aviation Ltd, Warren Down, Peasemore, Berkshire
G-DCZS	4081FF	Slingsby T59D Kestrel 19	1877	AL Maitland, Trustee of Kestrel Group, Portmoak, Perth & Kinross
G-DKNK	4081EB	Aero L-159E Honey Badger	156009	FR Aviation Ltd trading as Draken, Teesside, Durham
G-DKNL	4081EA	Aero L-159E Honey Badger	156024	FR Aviation Ltd trading as Draken, Teesside, Durham

G-DKNM	4081EC	Aero L-159E Honey Badger	156026	FR Aviation Ltd trading as Draken, Teesside, Durham
G-DMIX	4081C7	Flylight Nine	DA297	DA Morgan, Tinnel Farm, Landulph, Cornwall
G-DONN	400B75	Cessna 550 Citation II	550-0183	Opes MRF 3013 Ltd, East Midlands, Leicestershire
G-DONR	4081C9	Cameron O-31	12736	G Gray, (East Worldham, Hampshire)
G-FIXR	4081F9	Flylight Skyranger Nynja 912S	BMAA/HB/756	PS Bates, (Corby, Northamptonshire)
G-IMMN	4081D0	Diamond DA20-C1 Katana (built by Diamond Aircraft Industries Inc)	C0569	Diamond Flight Training Co. Ltd, Oxford, Oxfordshire
G-LECY	4081CE	Pipistrel Virus SE128 Velis Electro	VSW1280109	Triple J Aviation Engineering Ltd, Oxford, Oxfordshire
G-LIMR	4081E8	BRM Aero Bristell NG5 Speed Wing	LAA 385-15909	CJ Adey, (Battledown, Gloucestershire)
G-NJAH	408177	Cessna 560XL Citation XLS	560-5754	NetJets Europe Sociedade Unipessoal LDA, Farnborough, Hampshire
G-NJAI	408178	Cessna 560XL Citation XLS	560-5775	NetJets Europe Sociedade Unipessoal LDA, Farnborough, Hampshire
G-OTTR	4081E6	Skystar Kitfox Mk.7	LAA 172D-15745	RA Devey, (Hambrook, West Sussex)
G-RFTW	4081A5	Bombardier Challenger 604	6134	Concierge Ltd, trading as Jet Concierge Club, London Luton, Bedfordshire
G-SUNO	4080DF	Airbus A321-251NX	12060	Jet2.com Ltd, Leeds Bradford, West Yorkshire (NB)
G-TEKW	4081E4	Tekever AR5 Evolution Mk.2.3	522	Tekever Ltd, (Chilworth, Hampshire)
G-ULPY	407E24	Mooney M.20K	25-0665	Brisk Aviation Ltd, Blackbushe, Hampshire
G-UZLZ	40812E	Airbus A320-251N	12334	Easyjet Airline Company Ltd, London Luton, Bedfordshire (NB)
G-UZMK	40812D	Airbus A321-251NX	12163	Easyjet Airline Company Ltd, London Luton, Bedfordshire (NB)
G-VEYR	408120	Airbus A330-941	2076	Virgin Atlantic Airways Ltd, London Heathrow, Middlesex (NB)
G-WILZ	4081D4	Flylight Skyranger Nynja	396-26	SA Wills, (Paignton, Devon)
G-XPLR	4081CD	Pipistrel Virus SW121A Explorer	VSW121A0164	Triple J Aviation Engineering Ltd, Oxford, Oxfordshire
G-ZBLK	4080BF	Boeing 787-10	60632	British Airways PLC, London Heathrow, Middlesex
EI-HHS	4CAD5B	Airbus A220-300	55302	ALC Clover Ireland Ltd, Rome Ciampino (operated by ITA Airways)
EI-HHS	4CAE14	Airbus A220-100	50079	ALC Clover Ireland Ltd, Rome Ciampino (operated by ITA Airways)
EI-HNG	TBA	Cessna 172S Skyhawk SP	172S10508	Atlantic Flight Training Ltd, Cork, Co. Cork
EI-IKN	4CAE96	Boeing 737-8200	62383	Ryanair DAC, Dublin, Co. Fingal (NB)
EI-IKO	4CAE97	Boeing 737-8200	67116	Ryanair DAC, Dublin, Co. Fingal (NB)
EI-MCM	4CAEAC	Gulfstream GVIII-G800	87029	Westair Aviation Ltd, Shannon, Co. Clare (NB)
M-ARIA	43EA8E	Bombardier Global 5000	9586	Fabia IoM LP Inc, Biggin Hill, Greater London
M-BHOY	43E8B1	Dassault Falcon 7X	110	Cravant Ltd, Dublin, Co. Fingal, Republic of Ireland
M-CTRE	424C1D	ATR-72-212A	1183	ACIA Aero Leasing APAC Ltd, (stored Mönchengladbach, Germany)
M-YNNB	424861	Gulfstream G650ER	6394	Aviation One Ltd, Biggin Hill, Greater London
2-AECE	TBA	Airbus A320-214	3014	Start Ireland Leasing 8 Ltd, (stored Greenwood-Leflore, Mississippi, USA)
2-AEIP	TBA	Airbus A320-214	4175	UMB Bank NA. (stored Miami-Opa Locka, Florida)
2-ALCA	TBA	Airbus A220-300	55303	UMB Bank NA, (Stored Toulouse-Francazal, France)
2-ANJA	TBA	Beech B200 King Air	BB-1244	FSB Aviation Ltd, Guernsey, Channel Islands
2-HPAG	TBA	Boeing 737-8FE	37821	Aircraft Leasing VII Ltd, (stored at Pinal Air Park, Marana, Arizona)
2-LIDZ	TBA	Hawker 750	HB-21	Valavan Holding Ltd, TBA
2-STNF	43EC8B	Dassault Falcon 8X	507	Black Panther Aviation Ltd, Guernsey, Channel Islands
2-WANA	TBA	Embraer EMB-145LR	14501040	Cari Capital Group Ltd, Windhoek-Eros, Namibia
2-WEFX	TBA	British Aerospace Avro 146-RJ100	E3379	H&C Aero Ltd, (stored at Cranfield, Bedfordshire)
2-YAYN	TBA	Airbus A319-132	3803	KDAC Aircraft Holding Ltd, (stored Castellon-Costa Azahar, Spain)
2-YAYP	TBA	Airbus A319-132	3832	KDAC Aircraft Holding Ltd, (stored Castellon-Costa Azahar, Spain)

PREVIOUS IDENTITIES

Reg'n	Previous Identity
G-CBUO	ex (PH-***)
G-CMXB	ex G-HADM
G-CMXH	ex ZA775
G-CMXJ	ex ZB669
G-CMXK	ex ZB679
G-CMXL	ex ZB690
G-CMXM	ex XW846
G-CMXN	ex XZ320
G-CMXO	ex XZ334
G-CMXP	ex ZB674
G-DKNK	ex N270EM
G-DKNL	ex N274EM
G-DKNM	ex N275EM
G-DONN	ex G-MLBC
G-IMMN	ex C-GXMS
G-NJAH	ex CS-DXS
G-NJAI	ex CS-DXU
G-RFTW	ex M-ABSX
G-SUNO	ex D-AZAS
G-ULPY	ex D-EBIE
G-UZLZ	ex F-WWDO
G-UZMK	ex D-AZWF
G-VEYR	ex F-WWYO
EI-HHS	ex C-FOYE
EI-HLD	ex C-FOYF
EI-HNG	ex G-UFCI
EI-IKN	ex N4022T
EI-IKO	ex N4022T
EI-MCM	ex N729GD
M-ARIA	ex 9H-DMC
M-BHOY	ex M-CELT
M-CTRE	ex N1181B
M-YNNB	ex M-YNNS
2-AECE	ex B-6309
2-AEIF	ex C-GCJL
2-ALCA	ex C-FPGI
2-ANJA	ex G-DXTR
2-HPAG	ex VH-PAG
2-LIDZ	ex VQ-BAN
2-SNOW	ex F-WWZN
2-STNF	ex HS-TNF
2-TWCB	ex VT-SXC
2-WANA	ex PK-OMG
2-WEFX	ex G-WEFX
2-YAYN	ex JY-AYN
2-YAYP	ex JY-AYP

CANCELLATIONS

Reg'n	Type	C/N	Reason
G-ACEJ	de Havilland DH83 Fox Moth	4069	To Germany
G-ADWT	Miles M.2W Hawk Trainer	215	To Germany
G-AGYT	Auster J/N Alpha	1862	Cancelled by CAA (CofA expired 27.02.91, last reported on rebuild 07.91)
G-ATZZ	Reims Cessna F150G	0136	Cancelled by CAA (CofA expired 01.09.23, last reported at Newcastle, Co. Wicklow, Republic of Ireland 06.23)
G-BFPS	Piper PA-25-235 Pawnee	25-7856013	Cancelled by CAA (crashed on take-off at Tournai-Maubray, Belgium 02.07.22 whilst glider towing and destroyed by fire)
G-BIHX	Bensen B8MR	PFA G01-1003	Cancelled by CAA (Permit to Fly expired 08.07.12)
G-BSFX	Denney Kitfox Mk.2	PFA 172-11723	To Poland
G-BSRT	Denney Kitfox Mk.2	PFA 172-11873	Cancelled by CAA (Permit to Fly expired 31.08.15)
G-BTJL	Piper PA-38-112 Tomahawk	38-78A0863	Cancelled by CAA (CofA expired 14.05.15, fuselage last reported at Cotswold Airport 06.24)
G-BUHU	Cameron N-105	2785	Cancelled as Permanently WFU (CofA expired 23.06.18)
G-BVLX	Slingsby T.61F Venture T.Mk.2	1973	Cancelled by CAA (CofA expired 02.05.09, last reported on rebuild at Keevil, Wiltshire 05.21)
G-BVRH	Taylorcraft BL-65	1657	Cancelled by CAA (CofA expired 23.09.06, for sale at Taunton, Somerset 09.24)
G-BWYK	Yakovlev Yak-50	812004	To Lithuania
G-BWYR	Rans S.6-116 Coyote II	PFA 204A-13058	Cancelled as Destroyed (Crashed on landing at Swanborough Farm, Lewes, East Sussex 01.07.24)
G-BXIX	VPM M-16 Tandem Trainer	PFA G12-1292	Cancelled by CAA (restored to Register again the same day)
G-CCFD	BFC Challenger II	PFA 177-13180	Cancelled by CAA (Permit to Fly expired 24.06.20, last noted at Greenhills Farm, Wheatley Hill. Durham 08.22)
G-CFJV	Schleicher ASW 15	15109	Cancelled by CAA (CofA expired 06.08.21)
G-CHYC	Westlake Altair AX4-31/12	007	Cancelled as Permanently WFU (no Permit to Fly issued, believed not completed)
G-CHYN	CCF Harvard Mk.4M	CCF4-531	Cancelled as Permanently WFU (CofA expired 04.05.24, last reported on rebuild at Dunkeswell 2023)
G-CIHZ	P & M Quik GTR	8669	Cancelled as Destroyed (Permit to Fly current to 06.02.25, details unknown)
G-CLLF	Flylight Peabee Red Line	DA163	Cancelled by CAA (SSDR microlight so no Permit to Fly required)
G-CLLU	University of Southampton ULTRA-UAS	ULTRA TDP-001	Cancelled as Permanently WFU (UAS so no CofA or Permit required, last known used for static display 07.24)
G-CMPP	Ozone Power Triox 2	TRI235 Y.010.013	Cancelled by CAA (SSDR paramotor so no Permit required)
G-CMUU	North American T-6G Texan	168-548	Cancelled as Permanently WFU (no CofA or Permit issued, last reported on rebuild at Biggin Hill, Greater London, Greek owned & reported to have flown 24.10.24?)
G-COBN	Cessna 525 CitationJet CJ1	525-0429	To USA as N429EA
G-DHMA	Boeing 777F	66079	To People's Republic of China as B-226Y
G-DHMB	Boeing 777F	66080	To People's Republic of China as B-226Z
G-DXTR	Beech B200 King Air	BB-1244	To Guernsey as 2-ANJA
G-EUPL	Airbus A319-131	1239	Cancelled as Permanently WFU (CofA expired 16.01.24, to Madrid 22.12.23 for storage & subsequent parting out)
G-HRVD	CCF Harvard Mk.4	CCF4-548	Cancelled as Permanently WFU (no CofA or Permit issued, last reported on rebuild in France)
G-HULA	Robinson R66 Turbine	0830	To Turkey
G-IYRO	RAF 2000 GTX-SE	PFA G/13-1284	Cancelled by CAA (Permit to Fly expired 23.10.23)
G-KIRC	Pietenpol/Challis Chaffinch	1008	Cancelled by CAA (CofA expired 23.09.06, for sale at Taunton, Somerset 09.24, last reported stored at Aberthaw, South Glamorgan 10.23)
G-KURK	Piper J3C-65 Cub	11527	Cancelled by CAA (CofA expired 23.09.06, for sale at Taunton, Somerset 09.24)
G-LJCC	Murphy Rebel	PFA 232-13420	Cancelled by CAA (no Permit to Fly issued, Not completed correctly and parted out for spares)
G-MEDL	Airbus A321-231	2653	To Cayman Islands as VP-CBX
G-MIDS	Airbus A320-232	1424	Cancelled as Permanently WFU (CofA expires 20.03.25 (flown to St Athan, The Vale of Glamorgan 24.09.24 for parting out)
G-MLBC	Cessna 550 Citation II	550-0183	Re-registered as G-DONN
G-MNDC	Mainair Gemini/Flash (Modified)	336-885-3-W73	Cancelled by CAA (SSDR microlight so no Permit to Fly required)
G-MTPX	Thruster TST Mk.1	8107-TST-042	Cancelled as Permanently WFU (Permit to Fly expired 02.05.93)
G-MWWN	Mainair Gemini/ Flash IIA	872-1291-7-W667	Cancelled by CAA (Permit to Fly expired 22.07.17)
G-MYBU	Cyclone Chaser S447	CH837	Cancelled by CAA (SSDR microlight so no Permit to Fly required)
G-MZHC	Whittaker MW6-S (Modified SS)	PFA 164-11420	Cancelled by CAA (SSDR microlight so no Permit to Fly required)
G-ORGI	Hawker Hurricane Mk.XII	5481	To USA as N71SQ

UPDATES & CORRECTIONS

Reg'n	**Details**
G-BFOV	Became YU-MKG (NB cancelled as sold in Slovenia 01.09.23
G-BKMI	Became VH-A58 16.10.24
G-BZKC	Type officially changed to an X'Air Jabiru (3) 07.10.24
G-CCBJ	Type officially changed to a Skyranger Swift 912S(1) 25.10.24
G-CLJW	Became VH-TM5 10.09.24 (Corrects Page 71, December 2024
G-CMBX	Became EC-OKV 09.09.24
G-BMBY	Became PH-MBY
G-CMKO	Became EC-OKU 09.09.24
G-CMYA	C/N is 4 347 395 D (corrects Page 68, December 2024)
G-DECL	Type officially changed to a Slingsby T65-17L Vega 18.10.24
G-DEHY	Type officially changed to a Slingsby T65-17L Vega 09.10.24
G-DMBT	C/N is 33509 (corrects Page 68, December 2024)
G-JBBH	C/N is 4982 (corrects Page 68, December 2024)
G-LITN	Type officially changed to a Murphy Renegade 912 29.10.24
G-LCYJ	Type officially changed to a ERJ-190-100LR 17.10.24
G-LCYS	Type officially changed to a ERJ-190-100LR 28.10.24
G-LMRC	Reason for Cancellation was Cancelled as Destroyed (Flown to Cranfield, Bedfordshire 23.05.24 for parting out, fuselage to Cotswold, Gloucestershire 09.24 for scrapping) (Corrects Page 70, December 2024)
G-MGTV	Became EI-HNI 09.09.24
G-OETV	Became N241WF 23.10.24
G-PSUE	Type officially changed to a CFM Shadow Srs.CD (Modified SS) 11.10.24
G-SRVY	Became B-00TZ by 28.10.16
G-THRE	Became F-HJTH 16.10.24
G-WSKY	C/N is 1037 & Reason for cancellation is To USA as N3398M (Corrects Page 71, December 2024)
M-ABSV	Owner is Jet Aviation France SAS, Paris-Le Bourget, France (corrects Page 69, December 2024)
M-CITY	C/N is 1555 (corrects Page 69, December 2024)
M-LJGI	C/N is 179 (corrects Page 69, December 2024)
M-RBUS	Became T7-L05 (NTU), then RP-C3856 18.10.24 (NB Registration initially cancelled 01.11.22 but IOM register now states cancelled 28.02.23.
2-NETY	was an ATR-72-212(F) C/N 295, Reason for cancellation was Cancelled at Owner's Request (stored at Dhaka-Hazrat Shahjalal International, Bangladesh) (Corrects Page 71, December 2024)
2-YYAB	Became 9S-ADG 19.04.24

G-OVSI	Pipistrel Virus SW121	VSW1210029	Cancelled as Destroyed (Crashed on landing at Albert-Bray, France 09.05.21)
G-RGSK	Cirrus SR22T	9368	Cancelled as Destroyed (Crashed at Duxford, Cambridgeshire 26.03.24)
G-RNWM	Daher TBM-940	1395	To USA as N96RN
G-SALE	Cameron Z-90	10944	To Austria
G-SMBA	Cessna P210N Pressurised Centurion	P210-00808	To USA as N210WW
G-SRBM	Beech B350 King Air 350	FL-1072	To South Africa
G-TEKW	Tekever AR5 Evolution Mk.2.3	522	Cancelled by CAA (restored again a few days later)
G-UFCI	Cessna 172S Skyhawk SP	172S-10508	To Republic of Ireland as EI-HNG
G-VGBR	Airbus A330-343	1329	To Thailand as HS-TEW
G-VNYC	Airbus A330-343	1315	To Thailand as HS-TEV
G-WEFX	BAe Avro 146-RJ100	E3379	To Guernsey as 2-WEFX
G-WLMS	Mainair Blade 912	1233-0999-7-W1016	Cancelled by CAA (Permit to Fly expired 09.09.19. Last noted at Deenethorpe, Northamptonshire 04.22)
EI-EJK	Airbus A330-202	1252	To Austria as OE-IIP
EI-HEC	Airbus A330-322(F)	231	Cancelled at Owner's Request – Removed from Service. (Flown to St Athan, The Vale of Glamorgan 02.04.24 for parting out)
M-ABRH	ATR-72-212A	1132	To Israel as 4X-IHB
M-ABSF	Boeing 787-8	34795	To USA as N798AV
M-ABSP	Boeing 737-8	43974	To Poland as SP-LVT
M-ABSR	Boeing 737-8	43975	To Poland as SP-LVQ
M-ABSX	Bombardier Challenger 604	6134	To United Kingdom as G-RTFW
M-ABSY	Airbus A320-214	4346	To South Korea as HL8595
M-CELT	Dassault Falcon 7X	110	Re-registered as M-BHOY
M-YNNB	Gulfstream 650ER	6394	To Luxembourg as LX-ESO
M-YNNS	Gulfstream 650ER	6394	Re-registered M-YNNB
2-JACK	Piper PA-46-500TP Malibu Meridian	4697425	To USA as N369PT
2-AOAM	Fokker F28 Mk.0100	11321	To Kenya
2-OKBX	Fokker F28 Mk.0100	11547	To Kenya as 5Y-KCB
2-STNF	Airbus A340-642	953	Cancelled as Removed from Service (Flown to Taiyuan-Wusu, People's Republic of China 15.10.24)
2-TEAM	Cessna 525B CitationJet CJ3	525B0527	To Poland as SP-JOY (NB officially cancelled to Portugal 25.10.24)
2-VNJA	Airbus A320-232	7378	To Turkey as TC-JTT
2-VNJB	Airbus A320-232	7771	To Turkey as TC-JTS
2-VSLJ	Airbus A320-233	2570	To Bulgaria as LZ-FSJ
2-WANA	Embraer EMB-145LR	14501040	To Namibia

Key: NB – Nominal Base. A place name in brackets relates to the owner's address, as where the aircraft is based is unknown.

HOLA A321XLR

Just what will the new long-range Airbus A321XLR variant do for its operators, and also is passengers? **Mark Broadbent** reports

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▲ EC-OIL, Iberias first A321XLR about to commence taxi at Barcelona Airport for the first time José M. Deza

The A321 is such an everyday presence at airports worldwide that it seems entirely unremarkable. However, Iberia A321-253N, EC-OIL (msn 11504), taking off from Madrid/Barajas International Airport on November 14, 2024, was a more notable A321 departure than most.

EC-OIL's destination was not the usual short or mid range point somewhere in Europe, but more than 4,000nm across the Atlantic Ocean: Boston/Logan International Airport in Massachusetts.

It was the first commercial transatlantic flight with the A321XLR (Xtra Long Range), the latest A321 derivative. The aircraft departed Madrid at 1303hrs local time and landed in Boston at 1434hrs local. The flight followed various short-haul trips from Madrid – to Barcelona, Paris/CDG and Stockholm – after Airbus delivered the aircraft at the end of October.

Iberia CEO and president Marco Sansavini said: "We are very proud to be the launch airline for this new Airbus aircraft. The A321XLR will allow us to operate transoceanic routes and do so more efficiently."

Going further

The A321neo is the best-selling A320neo Family variant by some distance. Airbus's orders/deliveries data showed 6,787 orders for the aircraft by the start of November 2024, compared to 4,044 for the baseline A320neo and just 57 for the A319neo.

The A321neo has done especially well commercially not only because it offers savings from older single-aisle airliners (a reported 30% lower fuel burn per seat and 15% better cash operating costs), but because it chimes with airlines' preference for more seats and further range.

Airbus had already evolved the A321 to meet these demands before the A321XLR came along. The baseline A321neo's 3,500nm range was itself an increase on the first-generation A321-200's 3,200nm capability. Then, in January 2015, Airbus launched the A321LR (Long Range). This 4,000nm-range derivative flew on January 31, 2018, entering service later that year with Arkia Israeli Airlines. It was subsequently introduced by Aer Lingus, Air Transat, Gulf Air, TAP Portugal and SAS.

▲ **EC-OIL was presented to the media early in November ahead of its transatlantic flight** Iberia

Airbus launched the A321XLR at the 2019 Paris Air Show to provide even more range – to wit, 4,700nm. It first flew on June 15, 2022, and received European Union Aviation Safety Agency (EASA) type certification in July 2024. On launching the A321XLR, Airbus announced orders and commitments for 249 examples from customers including American Airlines (50), IAG (13), Qantas (20) and United Airlines (50).

Neither the COVID-19 pandemic's impact on international air travel demand, nor uncertainties on aircraft delivery dates due to widespread industry supply-chain issues dampened the A321XLR's appeal. AirAsia X, Air Canada, Icelandair, IndiGo, JetBlue and Wizz Air have placed orders. Large orders from IndiGo (69) and Wizz Air (47) especially catch the eye – these are low-cost carriers, so long-range and potentially intercontinental services with A321XLRs would be a new direction.

Airbus said in 2023 it had received 550 orders for the A321XLR from 26 different customers. This suggests solid interest in a new midsize airliner with around 220-280 seats and 5,000nm range, offering cost/efficiency improvements from earlier-generation aircraft.

The Boeing 757 is the prime midsize airliner from the previous generation – an aircraft able to handle sizeable passenger loads on longish routes, as typified by North American airlines flying the type from the eastern United States seaboard to western Europe or 'transcon' across the US – but the last new 757 left the factory back in 2005. Boeing

▼ **Iberia executives and crew** Iberia

A321XLR
Primero con Iberia
IBERIA

◀ Iberia CEO and president Marco Sansavini (left): "We are very proud to be the launch airline for this new Airbus aircraft" Iberia

spent several years in the 2010s debating whether to launch a new-generation midsize airliner (some dubbed it the 797), but with other things on its plate – the 777X and 737 MAX – the company ultimately decided not to proceed.

Rear central tank

The A321XLR looks pretty much like any other latest-generation A321neo, but that disguises some significant differences under the skin.

As noted, the A321LR increased the A321's range to 4,000nm from the baseline A321neo's 3,500nm. Airbus achieved this by using a third 2,992-litre auxiliary centre fuel tank, and introducing a higher 97,000kg maximum take-off weight (MTOW). To give the A321XLR even more range, the manufacturer had to increase MTOW to 101,000kg and introduce a permanent new rear centre fuel tank holding 12,900 litres of fuel.

▶ Iberia A321XLRs are configured with 182 seats in business and economy Iberia

The rear centre tank's front wall sits behind the main landing gear bay and its rear wall ahead of the rear cargo bay. Gary O'Donnell, head of the A321XLR programme, said in a recent video briefing issued by Airbus: "The secret of the tank is we can hold the fuel all the way up to the fuselage skin, so we maximise the amount of fuel we have in the space."

Certification challenge

Airbus originally planned a 2023 service entry for the A321XLR, but in its 2022 first-quarter results the company announced a postponement to 2024. This was due to redesign work to address EASA's fire safety and crashworthiness requirements under the CS-25 certification for large commercial aircraft. Gary O'Donnell commented: "Midway through the development programme we had a requirement to upgrade the crashworthiness, focusing primarily on landing without engines and

▼ Airbus has secured more than 500 orders for the A321XLR Airbus

One of the Airbus test A321XLRs on display at Farnborough in July 2024
Airbus

landing gear. We have to absorb the crash loads to ensure the aircraft can slide forward."

Airbus developed a more crash-resistant design for the tank. Engineers extended the A321's belly fairing, developed a protective rubber liner to surround the tank and introduced structural reinforcements.

The A321XLR has an entirely new main landing gear set-up, with simplified suspension, reinforced nose landing gear, new wheels, tyres, brakes, single-slotted inboard flaps and reinforced outboard flaps.

The new tank means the electronic cables on a standard A321 from the cockpit to the rudder could not be included in the A321XLR, so e-rudder (electronic rudder) technology was brought over from the A350 and A330neo. O'Donnell explained: "We've had to increase the thermal insulation around the fuselage to make sure the cold air from those extra couple of hours [on a long-haul flight] does not penetrate the cabin. Each of the doors has heated floor panels and we have optional floor panels in the forward section. This gives us very good thermal comfort."

Heir to the 757

John Strickland, director of JLS Consulting, reflected to our sister title, *AIR International*, that when the A320 Family was first developed back in the 1980s "nobody would ever have imagined it would evolve to be the long-haul aircraft it is today." He thinks the A321XLR "is coming in very nicely to where the 757 left off. Maybe Boeing will rue the day they didn't decide to replace that like for like."

Strickland identified the A321XLR's advantages: "It's lower risk in two senses. One, you're not having to start offering a massive amount of seats to a market. You're not having to worry about filling a widebody, because the capacity is lower. Two, that means much less fuel, and with the greater efficiency of lighter weight components like carbon fibre composites.

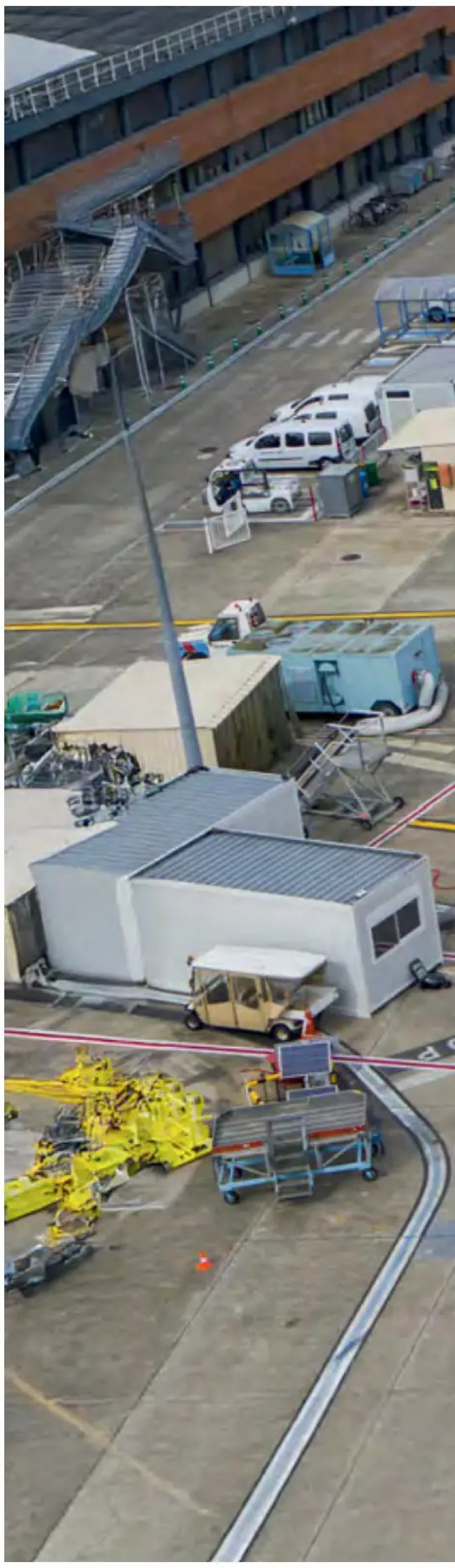
"It also gives incredible flexibility. We've seen already how it will work with the A321LR with Aer Lingus. Aer Lingus can do a US flight and then, rather than sit waiting for its next transatlantic flight, it can do a shorter flight, say to Portugal, carrying leisure traffic. You get the productivity out of the aircraft. You can move a lot of people, at less capacity, at lower cost and have flexibility in how to use the aircraft."

In this sense, the A321XLR is heir to the Boeing 757 as a versatile single aisle narrowbody airliner. The aircraft can maintain a long-haul route at times when it would be commercially unviable to use a larger aircraft with more seats, and it can add capacity to existing short-haul routes where needed.

Tellingly, many current or former Boeing 757 operators – including Aer Lingus, Icelandair and the 'big three' US majors, American, Delta and United – have all ordered A321XLRs. Icelandair is also planning to lease four A321LRs by summer 2025 as an interim step to A321XLRs, which will arrive at the end of the decade.

Network planning

Airbus says the A321XLR presents new possibilities for opening services that were previously unviable: "Airlines will be able to operate a lower-cost single-



aisle aircraft on longer and less heavily travelled routes, many of which can now only be served by larger and less efficient widebody aircraft." The manufacturer claims the A321XLR will have the range to fly city pairs such as London-Delhi, Miami-London, New York-Rome, Miami-Santiago, Hawaii-Houston, Tokyo-Sydney, Reykjavik-Dubai and Auckland-Hawaii.

Despite the aircraft's range capability, John Strickland told *AIR International* that operating long-haul routes with a single aisle airliner can be "complicated". He explained: "People say 'It'll open up all these new routes', but it doesn't follow that it'll work. You might be able to fly [a route] operationally, but are you going to get the passengers?".

JetBlue, which already operates A321LRs on transatlantic routes including to London/Gatwick, has ordered A321XLRs. Strickland said: "They will need to be careful about where they put them. They've decided to make Gatwick seasonal, and that tells you that even Gatwick is harder than Heathrow in terms of customer profile.

"You've got to use an aircraft efficiently. It doesn't mean that because it can do something that it's necessarily sensible to do it. It's the size of the market."

'Really, really eager'

Iberia plans to introduce A321XLRs to a second transatlantic route to Washington/Dulles in January 2025. Aer Lingus plans to add seven additional A321XLRs "in the coming months". Iberia's sister airline in the International Airlines Group was initially slated to receive the aircraft before plans changed.

Other carriers are also introducing A321XLRs in 2025. Mark Galardo, Air Canada's executive vice president for revenue and network planning, said in November 2024 that the airline expects its first two A321XLRs later in the year. American Airlines also anticipates welcoming its first examples this year, although it has not indicated a more specific timeframe. Brian Znotins, American's senior VP of network and schedule planning, told *The Points Guy* in October 2024: "We are looking at new, secondary Spain, Portugal, UK, anything in range – destinations that we think a widebody just isn't well suited for. We're just really, really eager to get that airplane. We can't get it soon enough." AN

XLR
AIRBUS A321
flying xtra long range
F-WXLR
F-WWBZ

▼ Airbus launched the A321XLR in 2019. The two aircraft involved in certification testing are pictured here in Toulouse Airbus

Next Month

Charles Cunliffe

Aviation News

Turkish Phantom turns 50

Built from the 1950s, the Phantom remains a trustworthy asset in multiple arsenals. Turkey recently celebrated 50 years of service

Private Hunters

Chris Melaisi visits Hawker Hunter Aviation, a UK company that brings the glorious swept-wing fighter to British skies

Lufthansa Report

Richard Schuurman provides a company update on German flag carrier, Lufthansa

In the Hebrides

Ben Stanley Hall visits Oban Airport to take a flight with Hebridean Air Services

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